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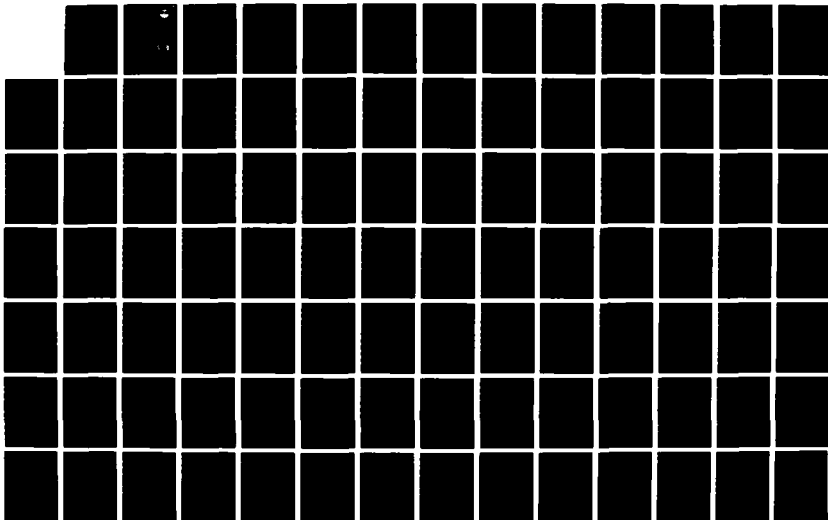
FIRST ARTICLE NOISE SURVEY OF THE A/F32T-9 LARGE TURBO
FAN ENGINE ENCLOSE. (U) AIR FORCE OCCUPATIONAL AND
ENVIRONMENTAL HEALTH LAB BROOKS AF. T H FAIRMAN
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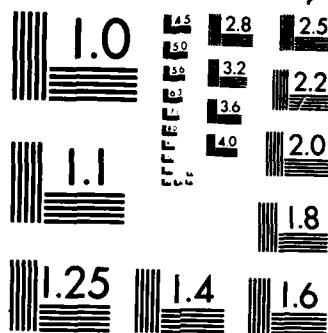
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USAFOEHL REPORT

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**FIRST ARTICLE NOISE SURVEY OF THE A/F32T-9
LARGE TURBO FAN ENGINE ENCLOSED NOISE
SUPPRESSOR SYSTEM, FAR-FIELD NOISE,
McCONNELL AFB KS**

TERRY M. FAIRMAN, CAPTAIN, USAF, BSC

May 1987

Final Report

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**USAF Occupational and Environmental Health Laboratory
Human Systems Division (AFSC)
Brooks Air Force Base, Texas 78235-5501**

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<p>-This report presents the results of noise measurements made on the A/F32T-9 Large Turbo Fan Engine, Enclosed Noise Suppressor System, during First Article Tests at McConnell AFB KS. Noise measurements obtained at 100 meters distance are summarized for the following engines: the J57-59W, TF33-P3, TF30-P7, F100, TF41-A1, J85-5, F101-GE-102, and the F109-CF-100.</p> <p>For J57-59W, TF33-P3, TF30-P7, F100, TF41-A1, J85-5, F101-GE-102, and the F109-CF-100.</p> <p>For J57-59W, TF33-P3, TF30-P7, F100, TF41-A1, J85-5, F101-GE-102, and the F109-CF-100.</p>					
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I. INTRODUCTION

A. Purpose: This report provides 1/3 octave band noise data on the A/F32T-9 Large Turbo Fan Engine Enclosed Noise Suppressor System (T-9 NSS), at McConnell AFB KS. Data were obtained in support of a request from the T-9 item managers, SA ALC/MMIMH, Kelly AFB TX, for noise data to support their First Article Tests (FAT) on the new facility.

B. Problem: The Williams Steel Inc./Cullum-Detuners Ltd. T-9 NSS is a prefabricated, air cooled, demountable, acoustically treated, jet engine noise suppressor system designed to totally enclose a single engine during ground runup operations. This facility is designed to permit testing of bare engines under controlled environmental conditions, and protect the neighboring area from noise through use of an air cooled exhaust system. This one facility can serve many different engine types and provides an efficient enclosed work area for maintenance personnel. T-9 noise suppressors are programmed to be sited at over 20 SAC bases and National Guard units in the next two years. Noise data are essential to evaluate the impact on the community noise environment around the T-9 facility, and determine if the T-9 noise suppressor meets the FAT requirements.

C. Scope: This report provides measured data defining bioacoustic environments produced by the following aircraft engines operating in the T-9 NSS during ground runup operations: J57-59W, TF33-P3, TF30-P7, F100, TF41-A1, J85-5, F101-GE-102, and F108-CF-100. All data are reported for 100 meters distance from the T-9 NSS, and are evaluated against the contractually specified criterion limit of 77 dB(A).

1. This report follows the data reporting format for the USAF Bioenvironmental Noise Data Handbooks established by the Armstrong Aerospace Medical Research Laboratory (AAMRL) under the report number AMRL-TR-75-50. The handbooks represent a multivolume library that quantifies the noise environments produced at flight/ground crew locations, and in surrounding communities by operations of Air Force aircraft and ground support equipment. The far-field, community-type noise data in the handbooks describe the noise produced during ground operations of aircraft, ground support equipment, and other ground-based equipment or facilities.

2. Volume 1 of the USAF Environmental Noise Data Handbook series discusses the objectives and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc. Refer to Volume 1 (reference 2) for such information.

II. DISCUSSION

A. Measurements

1. USAFOEHL acquired the far-field noise data during an approximately 2 hour test period for each engine operating in the T-9 NSS, thus keeping similar meteorological conditions. Figure 1 shows the T-9 Noise Suppressor's

orientation relative to 20 microphone measurement sites centered on two 100 meter (328 feet) semicircles. The center of the front semicircle was located on the ground beneath the intersection of the engine centerline and a plane passing through the exhaust nozzle. The center of the back semicircle was located on the center of the exhaust stack. This two center approach was used because the T-9 NSS is designed with two main exit ports for the noise generated; the air inlets and the exhaust stack. These two exit ports are located a relatively large distance apart (over 100 feet) causing the T-9 to act like a two point noise source. For the T-9 to be measured as a single point source, noise measurements would have had to be taken at a much further distance than the 100 meter radius. Measured noise levels at farther distances would have been lower and possibly too close to the ambient noise environment to make a clear determination as to the source characteristics. The 1/3 octave band spectra for the two 90 degree positions were logarithmically averaged together to present only single values for the 90 degree measurement sites. This approximation was necessary since the OMEGA programs used to analyze the data only allow 19 angles to be presented. This method of averaging does not significantly affect the calculated overall values at any of the measurement locations.

2. Portable tape recording systems were used to sequentially record the noise at each far-field location. Approximately 10-15 seconds of noise at each location was recorded on audio tape for later analysis using a 1/3 octave band digital frequency analyzer. Two survey teams (three for the F101) recorded data using separate recording systems at different points to allow data collection within the time allowed by the operating constraints of the engine. The microphone was attached to a hand held pole, pointed at the source (0 degree angle of incidence) and vertically scanned from 0.5 to 3 meters for a period of 10 to 15 seconds during data acquisition at each measurement location. These samples were then time-integrated to derive a root-mean-square sound pressure level. Vertical scanning and time-integrating together reduces anomalies frequently present in data acquired by fixed height microphones.

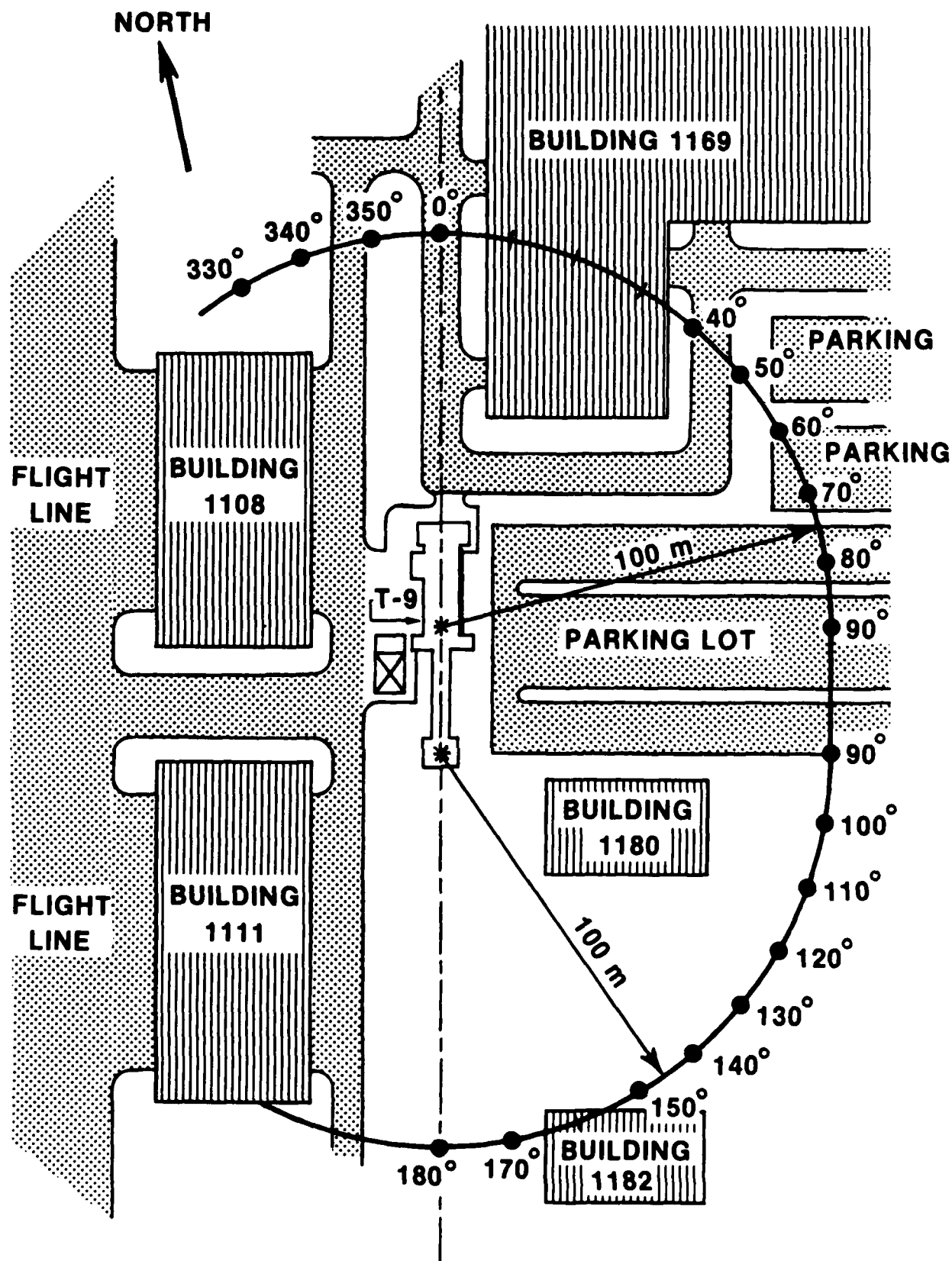


Figure 1: A/F32T-9 Noise Suppressor System
Far-Field Measurement Locations

B. Results

1. Table 1 presents a list of definitions of the acoustical quantities and terminology used in this report.

TABLE 1

DEFINITIONS OF ACOUSTICAL TERMS

OASPL	Overall Sound Pressure Level. Energy summation of sound pressure levels in all 1/3 octave bands with no frequency weighting applied.
OASLA	A-Weighted Overall Sound Level, in dB(A), as specified in American National Standards Institute (ANSI) Standard Number S1.4-1983.
OASLC	C-Weighted Overall Sound Level, in dB(C), as specified in ANSI Standard Number S1.4-1983.
PNLT	Tone Corrected Perceived Noise Level as specified in Federal Aviation Regulation (FAR) Part 36.
PSIL	Preferred Speech Interference Level as specified in AFR 161-35.
dB	Decibel, Base 10 logarithmic ratio of sound pressure.

2. Table 2 presents a summary of the OASLA values for each of the eight engines measured at McConnell AFB. These values were obtained from each of the Tables X.4 for each engine. The table summarizes the noise data for only the highest engine power setting of each engine, either military power or afterburner power, as this condition created the loudest noise levels. A review of this table indicates four of the eight engines had one or more measured angles where the A-weighted noise level exceeded the 77 dB(A) criteria. The four engines with OASLA values in excess of 77 dB(A) are the TF30-P7, the F100, the J85-5, and the F101. Each of these engines had afterburner capability. The F101 appears to be the worst offender in that 16 of the 18 measured locations exceeded the 77 dB(A) specification. As discussed next in the Observations section, each of these A-weighted values could be off by as much as ± 3 dB(A), possibly even slightly more, because of the errors introduced from reflections and adverse weather conditions. Even conceding an overestimation of the actual noise level by as much as 3 or 4 dB(A), the noise levels measured for these engines would still be well in excess of the 77 dB(A) criteria particularly for the F101 engine.

TABLE 2
OVERALL SOUND LEVELS, A-WEIGHTED (OASLA)

ANGLE (Deg)	ENGINE							
	J57	T33	* TF30	* F100	TF41	* J85	* F101	F108
0	74	75	76	79	72	77	85	73
350	72	74	76	76	71	85	81	71
340	72	74	78	74	70	89	80	71
330	64	74	66	67	66	75	72	67
40	54	56	62	66	59	71	67	69
50	63	62	71	72	66	70	80	71
60	67	64	72	75	69	84	80	70
70	70	66	73	76	71	75	80	70
80	73	66	74	78	72	78	83	72
90	70	66	77	80	72	73	86	71
100	70	64	79	79	68	75	85	69
110	67	62	71	74	63	69	79	66
120	63	62	75	77	63	69	83	64
130	66	63	81	80	66	76	86	69
140	68	65	82	79	68	74	87	70
150	69	66	85	84	71	74	91	73
170	70	68	83	84	69	72	91	73
180	69	67	82	84	70	70	92	72

* Engines operating at maximum afterburner power.
All other engines operating at military power or
equivalent maximum thrust.

3. Tables "X".1 (specific "X" for each engine) provide the engine operating condition (%RPM) for each power setting used in the far-field tests. Also listed in these tables are the surface meteorological conditions during acquisition of the noise data for each engine operating in the T-9 NSS.

4. Tables "X".2 list the overall and 1/3 octave band sound pressure level (SPL) measured at the far-field locations under the specified engine power conditions and meteorological conditions at the time of each test.

5. Tables "X".3 present the overall and 1/3 octave band SPLs normalized to 100 meters distance and standard day meteorological conditions (15 degrees C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure).

6. Tables "X".4 present the measures of human noise exposure as specified in AFR 161-35.

7. Tables "X".5 list the overall and octave band SPL data normalized to standard conditions.

8. Some of the Tables "X".2 - "X".5 have missing data for certain angles and frequencies. Several conditions caused missing data. First, it was physically impossible to collect data at the angle 160 location. Secondly, the level of noise in certain frequencies may have been below the dynamic range of the analysis equipment. This is the case for those measurement locations where high frequency results are missing. Lastly, any data which was erroneously recorded and not analyzable is not included in the tables.

9. Background noise levels were measured at each microphone measurement angle, and these data are presented as the first tables in the Table "X".2 series. It was necessary to determine the ambient noise levels at each measured angle around the T-9 since a single measurement obtained somewhere in the near vicinity of the T-9 would not adequately represent the background conditions at any of the individual measurement sites. This is due to both the sound energy reflected off of the surrounding buildings and the spurious and transient nature of aircraft operations noise from the flight line. It is important to note background noise levels are reported in a separate table in this report, and have not been eliminated from any of the remaining tables of this report. Further discussion of the reasons for not applying background noise corrections to the data in this report is contained in the Observations section.

C. Observations

1. A review of the data clearly indicates that the T-9 site at McConnell AFB KS, was not good for acquiring far-field noise data. As depicted in Figure 1, the complete west side of the T-9 NSS is shielded by buildings 1108 and 1111, so no noise measurements could be made on that side. On the east side, building 1169 either completely blocked or interfered with measurements from 10° to 60°, and buildings 1180 and 1182 blocked or interfered with measurements from angles 100° to 170°. Noise measurements at all angles were affected to varying degrees due to reflection of the acoustic waves off these nearby buildings and the interaction of the reflected waves with the direct acoustic wave from the source. Sound levels in any particular band could be different from a free-field measurement by as much as ± 4 dB. This could throw the final A-weighted levels at some of these locations off by as much as ± 3 dB(A) from the effect of reflections alone.

2. Another possible problem with the data which cannot be quantified is the affect of collecting data under meteorological conditions outside of the desired parameters. Attempts were made to collect data only when the conditions of temperature, humidity, and wind speed were within the range specified by the AAMRL Standard Procedure. This was not always possible due to the importance placed on keeping the FAT on schedule, a restriction levied by the Test Directors. It was also unrealistic to delay the tests several days waiting for the weather to change at McConnell AFB KS, during the winter months. High wind speeds probably had the greatest adverse affect on the data due to the nearby buildings. The higher wind speeds would create even larger eddy currents around nearby buildings. These currents might have been outside of our wind speed tolerance, and we would not have known it since wind

velocity was measured at a single location. Noise signatures at measurement locations near these buildings would be distorted to some indeterminable extent in addition to the distortion caused by the reflection effects discussed above. The OMEGA programs do not correct for these types of effects.

3. All the noise data presented in this report were subject to interfering noise from highly active flight line operations. F-4 and KC-135 flyovers were routine, as were helicopters. Noise from ground support equipment and vehicular traffic seemed to be constant. Every effort was made to record samples of the noise from the T-9 NSS during the quietest periods, but for the most part this turned out to be a practical impossibility. Where it could be determined that an aircraft or helicopter flyover had adversely affected the recording, every effort was made to attempt to analyze a segment of the record with the least amount of outside interference.

4. Background noise readings were obtained at each measurement angle prior to starting each engine test run. A review of any of the Table "X".2, background power condition data tables will show the high level of the ambient noise environment existing during each test. Normally the OMEGA programs are equipped to eliminate background and electronic noise from the data. We chose not to apply the background noise corrections to the data because if applied, it would have created many blank tables. We therefore chose to present the background noise in a separate table, and the uncorrected measured results at all other engine power settings. To be able to identify a measured noise level as coming from a suspected source, the background or ambient noise levels should be very much quieter than the measured level. In practice background levels should be 10 or more decibels below the measured level. The OMEGA analysis programs look for a measured level at least 6 dB above background to be identified with any degree of reliability as coming from the measured source. On examining the background versus other power settings for any data set, we found only the measured results for power conditions of military power and afterburner power were reliable in terms of exceeding the background noise by the required 6 dB criteria. The engine power settings of idle and intermediate for all engines should not be relied on, but are included in this report since they are representative of the actual noise levels measured at McConnell AFB, under the given conditions.

III. CONCLUSIONS

A. The survey site at McConnell AFB, KS, was not the best location for the purpose of conducting a noise survey on the T-9 NSS. Although the location of this facility is ideal from the standpoint of locating the T-9 NSS close to the jet engine repair shop and the rest of the industrial complex of the base, the surrounding buildings and proximity to an active runway did not allow for the most accurate noise data collection.

B. Since we can not qualify the noise source characteristics of the data in this report (i.e., attribute all the measured noise levels as coming from only the T-9 NSS), we must emphasize the reported data can only be considered representative of the noise levels measured at the McConnell AFB T-9 NSS under

the given site location and weather conditions. The data in this report can not and should not be used for predicting noise levels in future siting applications at other installations.

C. Given the uncertainty level of the data as discussed above, it appears the T-9 NSS does not adequately suppress the noise output of four of the eight engines surveyed. The limiting criteria of 77 dB(A) was exceeded at one or more measurement locations for the TF30, F100, J85, and F101 engines.

IV. RECOMMENDATION

We recommend these noise data be recollected at some other location with better acoustic conditions in the future to establish data for noise level predictions.

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2. Cole, John N., USAF Bioenvironmental Noise Data Handbook Volume 1: Organization, Content and Application, AMRL-TR-75-50 (1), Armstrong Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio (1975)
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APPENDIX A
Far-Field Noise on the
J57-59W Engine

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TABLE 3.1

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS
J57-59W ENGINE IN THE A/F32T-9 NOISE SUPPRESSOR SYSTEM
McCONNELL AFB, KANSAS

Date of Test: 8 February 1986

Time of Test: 1415 Hrs

Engine Operation

Idle 65.0 %RPM

80 % 80.0 %RPM

Military Power 94.4 %RPM

Meteorology

Temperature -1 Deg C

Bar Pressure 0.727 M Hg

Rel Humidity 68 %

Wind - Speed 3 - 6 Knots
- Direction 340 Deg (True)

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																								
3.2 1/3 OCTAVE BAND																								
DISTANCE = 100 METERS																								
NOISE SOURCE/SUBJECT:										OPERATION:					METEOROLOGY:					IDENTIFICATION:				
J57-59(GP) ENGINE										BACKGROUND NOISE					TEMP = -1 C					OMEGA 1.5				
IN THE A/F32T-9 NSS										SINGLE ENGINE GROUND					BAR PRESS = 0.727 M HG					TEST DP-OT9-100				
MCCONNELL AFB, KANSAS										RUNUP IN THE A/F32T-9					REL HUMID = 68 %					05 MAR 87				
FAR FIELD NOISE										NSS MCCONNELL AFB										PAGE 2				
FREQ																								
(HZ)																								
ANGLE (DEGREES)																								
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																								
25	59	57	59	55																				
31.5	59	58	59	56																				
40	57	57	57	55																				
50	57	57	59	61																				
63	59	60	59	57																				
80	61	61	57	60																				
100	68	67	62	65																				
125	63	62	65	61																				
160	55	56	56	54																				
200	55	61	57	58																				
250	49	52	54	56																				
315	45	48	50	49																				
400	45	47	51	49																				
500	45	45	45	47																				
630	44	47	48	50																				
800	45	47	48	49																				
1000	45	50	49	51																				
1250	46	50	52	47																				
1600	46	49	50	48																				
2000	45	45	45	44																				
2500	42	42	42	41																				
3150	38	38	40	37																				
4000	36	36	37	33																				
5000	33	34	36	29																				
6300	30	30	33	25																				
8000	28	26	29	22																				
10000	25	23	25	21																				
OVERALL	71	71	70	70																				

NO BACKGROUND CORRECTION APPLIED.

NO DATA COLLECTED.

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
3.2		1/3 OCTAVE BAND																OMEGA 1.5	
		DISTANCE = 100 METERS																TEST DP-OT9-100	
NOISE SOURCE/SUBJECT:		(OPERATION:																RUN 02	
(J57-59(6P) ENGINE		(INTID POWER(80.0X RPM)																TEMP = -1 C	
(IN THE A/F32T-9 N88		(SINGLE ENGINE GROUND																BAR PRESS = 0.727 M HG	
(MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9																REL HUMID = 68 %	
(FAR FIELD NOISE		(N88 MCCONNELL AFB																PAGE 2	
FREQ		ANGLE (DEGREES)																°	
((HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
(25		85	83	86	79	76	74	76	79	78	81	79	78	77	77	78	75	77	80
(31.5		84	82	79	76	68	70	74	74	78	78	76	73	72	72	74	77	74	75
(40		81	79	76	69	62	69	73	73	74	74	72	70	68	66	68	71	68	69
(50		73	72	72	68	59	65	70	69	70	69	65	64	64	64	64	65	66	69
(63		74	71	70	67	56	64	68	66	69	68	63	62	60	64	64	68	65	66
(80		70	66	63	63	51	59	63	64	63	63	63	60	57	57	59	59	61	59
(100		71	68	67	66	51	56	59	61	59	59	55	53	53	54	59	58	58	59
(125		67	60	63	57	47	54	58	58	57	56	54	49	51	51	53	54	55	56
(160		58	57	57	53	44	51	53	51	52	52	48	46	47	45	48	48	52	50
(200		59	61	60	54	52	52	51	52	51	53	50	49	46	47	46	47	48	47
(250		52	52	53	48	41	45	47	45	48	44	44	44	45	45	42	43	46	44
(315		48	48	50	43	38	41	44	44	46	45	44	41	41	41	42	43	45	44
(400		48	49	51	47	36	39	45	48	50	46	45	41	42	44	44	46	48	47
(500		46	46	47	42	33	37	44	47	52	45	45	40	41	42	43	45	44	43
(630		48	51	50	48	34	36	43	45	46	45	43	40	39	40	42	43	43	42
(800		46	49	47	44	34	35	43	43	44	42	41	38	39	39	40	42	47	42
(1000		45	47	47	44	32	32	42	41	43	41	41	37	37	38	37	39	40	39
(1250		46	48	46	46	34	34	45	43	43	42	41	36	36	38	38	39	38	29
(1600		46	46	46	43	31	33	41	41	40	40	38	34	36	36	36	37	36	37
(2000		61	56	55	49	37	49	52	55	54	54	54	52	47	46	45	46	43	48
(2500		51	47	47	43	38	39	43	45	45	45	44	41	37	38	40	39	36	41
(3150		49	45	45	42	30	32	41	40	40	39	38	35	31	34	33	34	34	35
(4000		59	54	52	43	32	38	47	47	45	45	42	38	32	36	36	37	35	37
(5000		53	48	46	41	30	31	41	41	39	38	37	32	30	32	33	33	31	34
(6300		53	48	46	38	28	32	40	40	37	37	35	31	30	31	31	31	30	32
(8000		51	45	44	37	30	31	37	38	36	36	34	30	30	31	32	32	30	33
(10000		48	43	41	34	30	30	35	35	34	33	31	30	30	30	31	30	30	31
OVERALL		89	87	87	82	77	77	80	81	82	83	82	80	79	78	80	80	80	82

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
3.2		1/3 OCTAVE BAND																		
		DISTANCE = 100 METERS																		
NOISE SOURCE/SUBJECT:		(OPERATION:																	METEOROLOGY:	
J57-59(GP) ENGINE		(MILITARY PAR(94.4X RPM)																	-1 C	
IN THE A/F321-9 MSS		(SINGLE ENGINE GROUND																	BAR PRESS = 0.727 H HG	
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F321-9																	REL HUMID = 68 X	
FAIR FIELD NOISE		(MSS MCCONNELL AFB																	PAGE 2	
FREQ		ANGLE (DEGREES)																	dB	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	97	85	84	82	80	78	83	83	82	85	83	83	83	80	83	85	83	84	85	
31.5	86	86	81	81	76	79	81	83	84	84	83	81	81	79	81	82	87	86	86	
40	86	86	82	78	74	78	81	82	83	82	81	79	77	77	77	80	84	82	84	
50	82	79	79	74	68	75	79	78	80	79	77	75	75	74	76	79	79	79	81	
63	85	82	80	74	69	74	79	80	81	81	79	77	77	74	74	78	81	79	80	
80	78	78	74	72	64	72	78	79	78	80	76	73	73	69	70	73	72	75	76	
100	76	73	73	67	62	70	72	73	73	73	70	67	65	67	69	71	73	73	72	
125	73	69	71	62	57	69	69	71	71	71	67	64	62	64	64	66	71	70	70	
160	70	66	67	57	54	67	63	66	68	68	66	60	60	62	61	68	66	66	66	
200	67	65	63	58	55	66	63	66	67	66	62	59	60	61	61	59	64	63	63	
250	64	61	60	53	51	58	59	61	64	63	58	57	58	60	60	60	62	59	62	
315	66	62	64	56	48	56	57	62	67	63	67	56	58	61	63	63	65	60	60	
400	61	58	58	54	46	54	57	60	66	62	61	55	58	61	63	66	68	64	64	
500	61	59	59	53	45	51	57	60	67	61	61	55	58	60	63	65	64	62	61	
630	60	59	58	53	43	51	55	58	63	60	60	53	56	58	61	62	62	61	61	
800	61	60	59	54	42	49	56	58	63	59	59	54	53	55	58	58	60	60	60	
1000	60	59	58	53	40	48	55	58	62	58	59	55	55	51	54	55	57	58	56	
1250	60	58	60	54	40	49	54	58	60	58	58	55	55	50	53	54	56	57	55	
1600	61	60	60	52	37	46	54	56	57	56	54	51	48	51	52	55	56	54	54	
2000	61	61	60	52	39	48	54	58	60	58	58	57	48	50	52	53	54	54	53	
2500	61	60	59	50	40	47	55	57	59	57	56	59	46	49	50	51	52	51	51	
3150	62	60	60	48	43	43	53	55	56	56	54	56	43	47	47	49	50	49	49	
4000	57	56	55	43	40	46	46	46	45	45	43	41	43	42	40	43	44	45	45	
5000	55	56	54	40	40	46	46	45	45	45	43	41	42	40	40	43	44	44	43	
6300	54	55	53	40	40	44	44	43	43	43	40	39	40	39	40	39	41	42	41	
8000	51	51	49	40	40	41	41	42	42	41	40	39	38	40	40	39	40	41	40	
10000	49	49	46	40	40	39	41	41	41	40	40	39	39	40	40	39	40	40	40	
OVERALL	93	92	89	86	82	85	88	89	90	90	88	87	85	87	89	91	90	91	91	

NO BACKGROUND CORRECTION APPLIED.

NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:			
3.3		1/3 OCTAVE BAND																OMEGA 1.5			
		DISTANCE = 100 METERS																TEST DP-079-100			
NOISE SOURCE/SUBJECT:		OPERATION:				METEOROLOGY:												RUN 05			
J57-59(OP) ENGINE		BACKGROUND NOISE				TEMP = 15 C															
IN THE A/F32T-9 NSS		SINGLE ENGINE GROUND				BAR PRESS = 0.760 H HG												05 MAR 87			
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9				REL HUMID = 70 %															
FAR FIELD NOISE		NSS MCCONNELL AFB																PAGE 3			
FREQ		ANGLE (DEGREES)																**			
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
25	59	57	59	55																	
31.5	59	58	59	56																	
40	57	57	57	55																	
50	57	57	59	61																	
63	59	60	59	57																	
80	61	61	57	60																	
100	68	67	62	65																	
125	63	62	65	61																	
160	55	56	56	54																	
200	55	61	57	58																	
250	49	52	54	56																	
315	45	48	50	49																	
400	45	47	51	49																	
500	45	45	45	47																	
630	44	47	48	50																	
800	45	47	48	49																	
1000	45	51	50	51																	
1250	46	50	52	48																	
1600	47	50	50	49																	
2000	46	46	46	45																	
2500	44	43	44	42																	
3150	40	40	42	39																	
4000	39	39	40	36																	
5000	37	37	39	33																	
6300	35	35	38	29																	
8000	34	33	35	29																	
10000	33	30	32	29																	
OVERALL	71	71	70	70																	

** NO DATA COLLECTED.

ss NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:									
3.3		1/3 OCTAVE BAND										OMEGA 1.5									
		DISTANCE = 100 METERS										TEST DP-019-100									
NOISE SOURCE/SUBJECT:		OPERATION:										METEOROLOGY:									
J57-59(GP) ENGINE		(INTND POWER(80.0X RPM)										TEMP = 15 C									
IN THE A/F32T-9 NSS		(SINGLE ENGINE GROUND										BAR PRESS = 0.760 M HG									
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9										REL HUMID = 70 X									
FAR FIELD NOISE		(NSS MCCONNELL AFB										PAGE 3									
FREQ		ANGLE (DEGREES)										..									
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
25		85	83	86	79	76	74	76	79	78	81	79	78	77	77	78	75	77	77	80	
31.5		84	82	79	76	68	70	74	74	78	78	76	73	72	72	74	77	74	74	75	
40		81	79	76	69	62	69	73	73	74	74	72	70	68	66	68	71	68	69		
50		73	72	72	68	59	65	70	69	70	69	65	64	64	64	66	65	66	69		
63		74	71	70	67	56	64	68	66	69	68	68	63	62	60	64	68	65	66		
80		70	66	65	63	51	59	63	64	63	65	63	60	57	57	59	59	61	59		
100		71	68	67	66	51	56	59	61	59	59	55	53	53	54	59	58	58	59		
125		67	60	63	57	47	54	58	58	57	56	54	49	51	51	53	54	55	56		
160		58	57	53	44	44	51	53	51	52	52	48	46	47	45	48	48	52	50		
200		59	61	60	54	52	52	51	52	51	53	50	49	46	47	46	47	48	47		
250		52	52	53	48	41	45	47	45	48	48	44	44	45	45	42	43	46	44		
315		48	48	50	43	38	41	44	44	46	45	44	41	41	44	42	43	45	44		
400		48	49	51	47	36	39	45	48	50	46	45	41	42	44	44	46	48	47		
500		46	46	47	42	33	37	44	47	52	45	45	40	41	42	43	45	44	43		
630		48	51	50	48	34	36	43	45	46	45	43	40	39	40	42	43	43	42		
800		46	50	47	44	34	35	43	43	44	42	42	38	39	40	40	42	47	42		
1000		45	47	47	44	32	33	42	42	43	41	41	37	37	38	38	39	40	39		
1250		47	48	48	46	34	34	45	43	43	42	41	36	36	38	38	39	38	39		
1600		47	46	47	44	32	34	42	42	41	41	38	35	36	36	36	37	37	38		
2000		61	57	56	50	38	50	53	56	55	55	53	53	48	47	46	47	44	49		
2500		52	49	48	44	39	41	45	47	47	46	45	43	39	40	41	41	37	42		
3150		51	47	47	44	32	34	43	42	42	41	40	37	33	36	35	36	36	37		
4000		61	57	55	46	35	41	50	50	48	48	45	41	35	39	39	40	38	40		
5000		57	51	50	44	34	34	45	44	43	42	40	36	34	35	37	36	34	38		
6300		57	52	51	43	33	36	45	45	42	42	39	36	34	35	36	35	34	36		
8000		57	52	50	43	36	38	43	44	42	42	40	36	37	38	38	38	36	39		
10000		55	50	49	42	37	38	42	43	41	40	39	37	38	38	38	38	38	39		
OVERALL		89	87	88	82	77	77	81	82	82	84	82	80	79	79	80	80	80	80	82	

.. NO DATA COLLECTED.

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
1/3 OCTAVE BAND																			
DISTANCE = 100 METERS																	OMEGA 1.5		
3.3																	TEST DP-019-100		
NOISE SOURCE/SUBJECT:																	RUN 03		
(OPERATION:																			
(MILITARY PWR(94.4X RPM)																			
(SINGLE ENGINE GROUND																			
(RUNUP IN THE A/F32T-9																	05 MAR 87		
(MSS MCCONNELL AFB																	PAGE 3		
FREQ																			
(HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	87	85	84	82	80	78	83	83	82	85	83	83	80	83	85	83		84	85
31.5	86	86	81	81	76	79	81	83	84	84	83	81	79	81	82	87		86	86
40	86	86	82	78	74	78	81	82	83	82	81	79	77	77	80	84		82	84
50	82	79	79	74	68	75	79	78	80	79	77	75	74	76	79	79		79	81
63	85	82	80	74	69	74	79	80	81	81	79	77	74	74	78	81		79	80
80	78	78	74	72	64	72	78	79	78	80	76	73	69	70	73	72		75	76
100	76	73	73	67	62	70	72	73	73	73	70	67	65	67	69	71		73	72
125	73	69	71	62	57	69	69	71	71	71	67	64	62	64	64	66		71	70
160	70	66	67	57	54	67	65	68	68	68	66	60	61	60	62	61		68	66
200	67	65	63	58	55	66	63	66	67	66	62	59	60	61	61	59		64	63
250	64	61	60	53	51	58	59	61	64	63	58	57	58	60	60	60		62	59
315	66	62	64	56	48	56	57	62	67	63	67	56	58	61	63	63		65	60
400	61	58	58	54	46	54	57	60	66	62	61	55	58	61	63	66		68	64
500	61	59	59	53	45	51	57	60	67	61	61	53	58	60	63	65		64	62
630	60	59	58	55	43	51	55	58	63	60	60	53	56	58	61	62		62	61
800	61	60	59	55	42	49	56	58	63	59	59	54	53	55	58	58		60	60
1000	60	59	59	55	41	48	55	59	62	59	59	55	52	54	55	58		59	57
1250	60	59	60	54	40	49	54	58	60	58	59	55	50	53	55	57		57	55
1600	62	60	61	53	38	47	54	57	58	57	55	52	49	52	53	55		56	55
2000	62	62	61	53	40	49	55	59	61	59	59	58	49	51	53	54		55	54
2500	63	61	61	51	42	48	57	59	60	58	58	60	47	51	51	53		54	53
3150	65	63	62	50		45	55	57	58	58	56	59	45	49	49	51		52	51
4000	59	59	58	45			50	51	51	51	48	47	46	45	45	48		49	48
5000	59	59	57	43			50	49	49	48	46	44		45	43	46		47	46
6300	59	59	57				48	49	48	47	45	44		45	43	45		46	45
8000	57	57	55				47	49	48	47	46	46	44	46	46	47		47	46
10000	56	56	54				46	49	48	48	47	47	46	47	47	47		48	47
OVERALL	93	92	89	86	82	85	88	89	90	90	89	87	85	87	89	91		91	91

NO DATA COLLECTED.

** NO DATA COLLECTED.

TABLE	MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:
3.4	DISTANCE = 100 METERS																	OMEGA 1.5
NOISE SOURCE/SUBJECT:	OPERATION:																	TEST DP-019-100
J57-59(GP) ENGINE	BACKGROUND NOISE																	RUN 05
IN THE A/F321-9 NSS	SINGLE ENGINE GROUND																	05 MAR 87
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F321-9																	
FAR FIELD NOISE	NSS MCCONNELL AFB																	PAGE 4
	METEOROLOGY:																	
	TEMP = 15 C																	
	BAR PRESS = 0.760 H HG																	
	REL HUMID = 70 %																	
	ANGLE (DEGREES)																	
	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
HAZARD/PROTECTION																		
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																		
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																		
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																		
NO PROTECTION																		
OASLC	71	71	70	70														
OASLA	57	59	60	59														
T	1440	1440	1440	1440														
COMMUNICATION																		
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																		
PSIL	48	50	52	50														
ANNOYANCE																		
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																		
TONE CORRECTION (C IN DB)																		
PNLT	73	73	73	72														
C	1	1	1	1														
NO DATA COLLECTED.																		

TABLE	MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:
3.4	DISTANCE = 100 METERS																	OMEGA 1.5
NOISE SOURCE/SUBJECT:	OPERATION:																	TEST DP-079-100
J57-59(OP) ENGINE	INTMD POWER(80.0X RPM)																	RUN 02
IN THE A/F32T-9 NSS	SINGLE ENGINE GROUND																	05 MAR 87
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9																	PAGE 4
FAR FIELD NOISE	NSS MCCONNELL AFB																	
	METEOROLOGY:																	
	TEMP = 15 C																	
	BAR PRESS = 0.760 M HG																	
	REL HUMID = 70 %																	
	ANGLE (DEGREES)																	
	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
HAZARD/PROTECTION																		
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																		
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																		
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																		
NO PROTECTION																		
OASLC	86	84	84	79	73	74	78	78	80	80	78	77	75	75	77	78	77	78
OASLA	68	64	63	58	49	54	59	60	60	59	58	56	53	53	53	54	54	55
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
COMMUNICATION																		
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																		
PSIL	57	56	55	51	40	43	51	52	52	51	49	46	44	45	45	46	46	47
ANNOYANCE																		
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																		
TONE CORRECTION (C IN DB)																		
PNLT	88	83	82	75	64	73	77	79	79	79	78	75	71	71	71	72	70	73
C	4	3	3	2	2	4	3	4	4	4	4	5	4	3	3	3	2	3

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																
IDENTIFICATION:																
3.4 DISTANCE = 100 METERS																
NOISE SOURCE/SUBJECT:																
(J57-59(GP) ENGINE)																
(IN THE A/F32T-9 NSS)																
(MCCONNELL AFB, KANSAS)																
(FAR FIELD NOISE)																
(OPERATION:)																
(MILITARY PWR(94.4X RPM))																
(SINGLE ENGINE GROUND)																
(RUMUP IN THE A/F32T-9)																
(NSS MCCONNELL AFB)																
(METEOROLOGY:)																
(TEMP = 15 C)																
(BAR PRESS = 0.760 M HG)																
(REL HUMID = 70 X)																
(PAGE 4)																
HAZARD/PROTECTION																
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																
NO PROTECTION																
OASLC 91 89 87 84 79 83 86 87 88 88 86 84 82 84 86 89																
OASLA 74 72 72 64 54 63 67 70 73 70 70 67 63 65 68 69																
T 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																
COMMUNICATION																
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
PSIL 66 65 64 57 60 62 65 63 62 60 58 59 61 62 61																
ANNNOYANCE																
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																
TONE CORRECTION (C IN DB)																
PNLT 91 88 88 78 67 77 83 85 87 86 85 84 76 80 81 84																
C 1 0 1 1 0 0 0 0 0 0 1 1 0 0 0 0																
** NO DATA COLLECTED.																

TABLE SOUND PRESSURE LEVEL (DB)															
OCTAVE BAND															
DISTANCE = 100 METERS															
NOISE SOURCE/SUBJECT:															
J57-59(OP) ENGINE															
IN THE A/F32T-9 NSS															
MCCONNELL AFB, KANSAS															
FAR FIELD NOISE															
FREQ															
(HZ)															
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180															
ANGLE (DEGREES)															
**															
31.5															
63															
125															
250															
500															
1000															
2000															
4000															
8000															
OVERALL															
71 71 70 70															

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																
3.5	OCTAVE BAND																	
DISTANCE = 100 METERS																		
NOISE SOURCE/SUBJECT:		METEOROLGY:																
J57-59(GP) ENGINE		TEMP = 15 C																
IN THE A/F32T-9 NSS		BAR PRESS = 0.760 M HG																
MCCONNELL AFB, KANSAS		REL HUMID = 70 %																
FAR FIELD NOISE																		
		NSS MCCONNELL AFB																
FREQ		ANGLE (DEGREES)																
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160
		89	86	87	81	77	76	80	81	82	83	81	80	79	78	80	80	80
31.5		78	75	75	71	61	68	73	71	73	72	70	67	66	66	69	70	80
63		73	69	69	67	53	59	62	63	62	61	58	55	56	56	60	59	69
125		60	61	61	55	53	53	53	53	54	55	51	51	49	50	49	49	60
250		52	54	54	51	40	42	49	52	55	50	49	45	45	47	48	50	51
500		51	53	52	50	38	39	48	48	48	47	46	42	42	43	44	45	48
1000		62	58	57	52	42	51	54	57	56	56	55	53	49	48	48	48	45
2000		63	58	57	50	39	42	52	52	50	49	47	43	39	42	42	42	45
4000		61	56	55	47	41	42	48	49	47	46	44	41	41	42	42	42	41
8000		89	87	88	82	77	77	81	82	82	84	82	80	79	79	80	80	82
OVERALL																		

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)			
OCTAVE BAND	DISTANCE = 100 METERS		
3.5			
NOISE SOURCE/SUBJECT:		OPERATION:	
J57-59(GP) ENGINE	(MILITARY PWR(94.4x RPM)	METEOROLOGY:	
IN THE A/F32T-9 NSS	(SINGLE ENGINE GROUND	TEMP = 15 C	
MCCONNELL AFB,KANSAS	(RUNUP IN THE A/F32T-9	BAR PRESS = 0.760 M HG	
FAR FIELD NOISE	(N88 MCCONNELL AFB	REL HUMID = 70 %	
		PAGE 5	
FREQ (HZ)		ANGLE (DEGREES)	
	0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180		
31.5	91 90 87 85 82 83 87 87 88 89 87 86 84 86 88 90	89 90	
63	87 85 83 79 72 79 83 84 84 85 82 80 78 79 82 83	83 84	
125	78 75 76 69 64 73 74 76 76 76 73 69 68 70 71 73	76 75	
250	71 68 67 61 57 67 65 68 71 69 68 62 64 66 66 65	68 65	
500	66 63 63 59 49 57 61 64 70 66 65 59 62 65 67 70	70 67	
1000	65 64 64 59 46 54 60 63 67 63 65 60 57 59 61 62	63 63	
2000	67 66 66 57 45 53 60 63 65 63 62 62 53 56 57 59	60 59	
4000	66 65 64 52 57 59 59 59 57 59 57 59 52 51 53	55 54	
8000	62 63 61 52 54 53 52 54 53 52 51 50 48 51 50 51	52 51	
OVERALL	93 92 89 86 82 85 88 88 89 90 90 89 87 85 87 89 91	91 91	

NO DATA COLLECTED.

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APPENDIX B

Far-Field Noise on the

TF33-P3 Engine

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TABLE 4.1

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS
TF33-P3 ENGINE IN THE A/F32T-9 NOISE SUPPRESSOR SYSTEM
McCONNELL AFB, KANSAS

Date of Test: 13 February 1986

Time of Test: 1000 Hrs

Engine Operation

Idle	57.3 %RPM
80 %	80.3 %RPM
Military Power	99.0 %RPM

Meteorology

Temperature	-2 Deg C
Bar Pressure	0.727 M Hg
Rel Humidity	67 %
Wind - Speed	4 - 6 Knots (Gusts to 15)
- Direction	170 Deg (True)

TABLE	MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
4.2	1/3 OCTAVE BAND)	
	DISTANCE = 100 METERS																	) OMEGA 1.5	
																		) TEST DP-019-200	
	NOISE SOURCE/SUBJECT:																	) RUN 01	
	(OPERATION:																	) 05 MAR 87	
	(FLIGHT IDLE(57.31 RPM)																	) PAGE 2	
	(SINGLE ENGINE GROUND																		
	(RUNUP IN THE A/F32T-9																		
	(REL HUMID = 67 %																		
	(MSS MCCONNELL AFB																		
	FAR FIELD NOISE																		
	FREQ	** ANGLE (DEGREES)																**	
	(HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
	25	68	73	67	77	69	68	69	69	70	68	66	65	68	71	66	65	67	65
	31.5	67	71	67	74	67	66	68	68	68	67	64	64	68	69	70	69	73	71
	40	63	70	64	72	67	64	65	65	65	67	63	62	66	66	67	69	70	66
	50	64	68	66	70	66	61	65	65	65	67	63	62	67	67	67	69	71	73
	63	70	72	67	69	64	60	64	62	67	67	63	62	64	66	64	65	68	70
	80	65	67	65	67	61	59	59	59	62	66	58	57	62	63	60	62	66	65
	100	68	69	68	67	59	61	62	63	64	61	56	59	59	50	57	58	62	64
	125	70	69	71	69	59	53	56	58	61	56	53	53	55	56	54	55	59	61
	160	70	69	71	71	60	53	52	52	57	49	50	50	52	52	49	50	54	59
	200	67	67	69	68	61	51	52	54	58	51	49	49	54	50	50	47	51	58
	250	61	61	64	62	60	50	51	52	58	46	46	46	49	48	46	46	51	60
	315	58	60	61	59	60	48	48	47	57	45	45	45	48	47	46	45	52	58
	400	57	59	57	59	58	48	48	47	53	44	44	44	47	47	47	44	53	59
	500	57	58	57	58	55	46	49	47	50	43	44	44	47	46	48	43	54	60
	630	60	62	59	63	52	45	46	44	49	43	43	43	48	46	47	43	54	57
	800	60	61	58	60	49	43	43	45	47	42	42	43	45	44	45	41	52	56
	1000	60	62	61	60	45	41	45	44	44	42	42	42	46	43	44	40	50	54
	1250	59	61	62	58	43	40	43	44	43	41	40	40	42	41	41	39	48	52
	1600	57	57	58	54	45	36	40	39	38	36	36	36	39	38	36	36	45	49
	2000	57	58	58	53	43	34	39	38	37	35	35	35	36	37	35	34	43	46
	2500	55	56	55	55	37	33	38	37	36	38	38	38	36	37	35	35	41	43
	3150	54	54	54	56	33	31	37	35	33	33	33	32	33	35	32	30	39	40
	4000	52	52	53	56	30	28	36	33	31	30	30	30	32	32	31	28	34	35
	5000	51	52	52	56	28		34	32	31	32	32	32	33	31	34	29	32	32
	6300	48	50	50	55			33	28	28	30	30	30	31	30	33	28	29	29
	8000	50	51	53	59			33	27			28	28	32	30	31	28	29	29
	10000	45	47	49	55			31						29	27	30		27	28
	OVERALL	78	80	79	82	75	73	74	75	76	72	71	74	74	76	75	75	78	78

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:		
1/3 OCTAVE BAND																				
4.2		DISTANCE = 100 METERS																OMEGA 1.5		
NOISE SOURCE/SUBJECT:		(OPERATION:)																TEST DP-019-200		
TF33-P3(OP) ENGINE		(INTMD POWER (80.3% RPM))																RUN 02		
IN THE A/F327-9 NSS AT		(SINGLE ENGINE GROUND)																05 MAR 87		
MCCONNELL AFB-KANSAS		(RUNUP IN THE A/F327-9)																		
FAR FIELD NOISE		(NSS MCCONNELL AFB)																PAGE 2		
FREQ		ANGLE (DEGREES)																		
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25		81	80	79	74	71	70	71	70	72	73	72	72	70	71	69	73	74		
31.5		80	80	73	72	68	67	70	70	71	70	70	69	68	70	68	69	68		
40		74	75	70	70	65	65	68	71	69	68	68	67	66	65	66	68	66		
50		71	69	69	71	63	62	66	67	66	65	65	66	64	63	61	70	69		
63		72	72	69	72	62	62	65	69	64	64	64	66	62	61	64	70	78		
80		67	67	66	70	63	60	61	66	61	60	60	63	60	57	59	70	74		
100		68	71	67	70	58	62	59	63	64	57	59	59	57	56	57	69	67		
125		69	70	70	71	55	55	59	60	59	55	54	56	55	53	55	68	60		
160		69	70	70	72	50	51	55	58	56	51	50	53	55	49	52	66	56		
200		66	68	69	70	51	53	54	55	57	52	50	51	51	50	49	60	53		
250		60	62	62	65	48	51	51	53	55	49	49	51	50	50	49	60	56		
315		57	58	60	64	45	47	52	53	51	47	48	52	47	47	48	61	55		
400		56	58	58	61	44	49	50	52	51	47	47	51	48	48	48	61	55		
500		55	58	58	60	43	47	49	51	49	46	48	46	48	47	47	60	53		
630		58	62	63	64	42	46	49	50	47	46	49	47	47	49	46	55	52		
800		58	61	63	62	41	44	48	47	49	44	45	45	46	46	44	53	50		
1000		59	61	65	62	40	42	47	46	47	43	44	45	45	46	43	50	48		
1250		59	61	65	59	40	42	46	46	47	43	43	42	43	43	41	47	46		
1600		57	58	59	56	37	38	44	43	44	41	38	40	42	38	38	44	45		
2000		64	64	63	58	44	46	54	57	56	51	47	39	40	40	41	44	47		
2500		58	58	57	55	37	39	46	48	47	43	40	35	39	39	36	40	42		
3150		55	55	56	56	32	33	42	40	40	37	35	33	36	33	33	37	39		
4000		59	57	57	58	30	35	45	43	42	38	36	30	31	32	33	34	36		
5000		55	53	54	57		30	40	39	37	35	33	29	28	33	31	31	33		
6300		54	52	53	57		29	39	38	35	35	31	28		32	30	30	31		
8000		52	52	55	60			36	35	32	33	30	28		32	31	30	31		
10000		49	48	51	56			32	32	29	32	27	27		31	30	30	30		
OVERALL		85	85	82	82	75	74	76	77	77	77	76	76	74	75	74	79	81		

NO BACKGROUND CORRECTION APPLIED.

NO DATA COLLECTED.

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)															IDENTIFICATION:			
1/3 OCTAVE BAND																				
4.2		DISTANCE = 100 METERS															OMEGA 1.5			
NOISE SOURCE/SUBJECT:																	TEST DP-019-200			
TF33-P3(GP) ENGINE																	RUN 03			
IN THE A/F32T-9 N55 AT																	05 MAR 87			
MCCONNELL AFB,KANSAS																				
FAR FIELD NOISE																	PAGE 2			
FREQ (HZ)		ANGLE (DEGREES)															**			
		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	88	87	83	81	80	82	84	83	84	83	80	78	82	82	80	81	83			
31.5	89	86	81	78	79	81	82	83	83	82	79	77	79	79	83	82	82			
40	87	88	83	78	74	76	81	82	81	82	79	76	75	75	78	81	79			
50	83	82	80	76	72	75	77	78	80	78	77	74	73	75	77	76	79			
63	86	83	79	74	71	74	76	76	78	77	76	73	73	72	75	78	77			
80	79	79	75	70	66	71	75	74	75	77	72	69	70	68	71	71	74			
100	75	74	73	68	63	70	71	68	69	71	68	65	66	67	68	70	72			
125	73	73	73	71	58	67	69	67	68	70	66	61	62	63	66	67	70			
160	73	72	71	73	58	63	65	66	65	66	62	59	58	58	64	65	68			
200	71	71	69	70	57	61	62	65	65	65	60	59	57	56	62	63	66			
250	66	68	64	65	54	60	58	60	63	64	58	57	55	56	61	57	61			
315	63	66	61	65	50	59	56	58	60	62	56	55	54	54	60	55	60			
400	62	64	61	63	49	55	54	58	58	60	57	54	55	57	59	58	62			
500	61	63	61	61	47	51	53	56	57	58	57	55	55	56	59	58	60			
630	62	65	65	65	45	50	51	55	56	57	56	53	54	56	57	58	59			
800	61	63	64	62	44	49	50	54	55	54	55	52	52	54	56	58	60			
1000	62	63	64	63	41	48	50	53	53	53	54	51	51	53	55	57	58			
1250	62	62	62	60	39	47	49	53	53	52	52	49	51	52	53	54	56			
1600	60	60	59	57	45	47	49	51	51	50	50	47	47	50	51	53	54			
2000	60	60	59	58	37	44	47	52	51	49	48	45	45	48	49	51	52			
2500	59	59	58	57	42	46	46	51	50	48	47	45	43	45	47	49	49			
3150	62	60	60	58	41	48	52	49	47	46	44	39	42	44	46	46	46			
4000	60	58	58	59	38	46	50	46	45	45	43	41			39	43	43			
5000	57	55	56	58	43	43	46	42	42	42	41					41	41			
6300	57	55	55	57	42	45	41	40	38											
8000	56	55	56	61	40	43	39	38												
10000	52	51	53	57	40	43	39	38												
OVERALL	94	93	91	87	84	85	87	88	89	89	87	84	83	85	86	87	88			

NO BACKGROUND CORRECTION APPLIED.
 ** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:			
1/3 OCTAVE BAND																				
4.3																	OMEGA 1.5			
DISTANCE = 100 METERS																	TEST DP-019-200			
																	RUN 05			
NOISE SOURCE/SUBJECT:																				
(OPERATION:																	METEOROLOGY:			
(BACKGROUND NOISE																	TEMP = 15 C			
(SINGLE ENGINE GROUND																	BAR PRESS = 0.760 M HG			
(RUNUP IN THE A/F32T-9																	REL HUMID = 70 %			
(NSS MCCONNELL AFB																	PAGE 3			
ANGLE (DEGREES)																	**			
FREQ																	150	160	170	180
(HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
25	69	74	74	72	66	68	63	64	70	71	69	72	70	69	68	64		70	70	
31.5	68	72	71	71	65	65	63	62	68	71	67	72	71	74	70	71		76	73	
40	66	71	71	69	63	62	63	60	66	38	66	66	68	68	65	61		70	72	
50	66	70	69	68	60	60	59	59	64	67	64	65	66	67	65	61		71	71	
63	70	72	69	68	58	58	57	57	61	65	63	62	64	64	62	60		68	67	
80	67	67	66	70	54	54	55	54	58	63	61	60	62	62	60	58		68	65	
100	71	69	67	70	54	52	53	55	58	59	60	57	61	61	58	57		67	68	
125	65	65	66	66	55	50	53	54	54	55	54	52	56	58	56	57		62	63	
160	63	62	64	65	47	48	47	47	50	52	50	49	53	53	52	53		57	59	
200	65	64	67	64	48	49	50	52	55	56	53	50	53	51	52	52		54	56	
250	62	59	62	61	46	47	50	50	57	55	54	48	54	52	51	50		56	50	
315	62	59	62	63	43	44	46	46	48	50	50	48	57	56	55	52		59	50	
400	64	61	62	66	43	48	49	49	49	51	53	50	57	57	56	52		61	54	
500	65	58	62	67	41	46	46	48	48	49	50	50	55	56	55	51		61	56	
630	65	59	62	68	39	40	43	46	49	47	49	50	56	59	54	52		61	58	
800	66	60	64	68	39	39	44	45	49	48	50	50	58	59	55	54		62	58	
1000	67	61	65	68	37	37	43	45	46	47	47	49	57	57	56	53		59	55	
1250	66	61	65	66	36	37	46	45	45	46	46	49	57	56	55	52		57	51	
1600	63	58	63	63	34	34	41	42	43	44	44	45	54	53	53	49		55	48	
2000	62	56	61	61	33	31	40	39	40	41	40	43	50	48	50	44		51	45	
2500	58	53	59	58	32	29	40	37	37	40	38	42	46	45	47	42		48	42	
3150	54	50	56	54	30		39	35	35	37	35	39	42	40	42	38		44	39	
4000	50	48	53	52			37	32	33	36	35	37	40	38	37	36		39	36	
5000	46	45	48	48			35	35	32	36	35	36	40	37	35	34		37	36	
6300	42	42	46	45			36			37	37	37	40	37	36	38		38	38	
8000	40	40	43	43			37			38	39	38	40	41	38	41		40	38	
10000	38	39	40	40			35			39	39	39	39	39	38	40		39	39	
OVERALL	80	80	80	81	71	71	69	69	74	76	74	76	76	77	75	74		80	79	

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
4.3																	OMEGA 1.5	
DISTANCE = 100 METERS																	TEST DP-019-200	
NOISE SOURCE/SUBJECT:																	RUN 01	
(OPERATION:																		
(FLIGHT IDLE(57.3% RPM)																		
(SINGLE ENGINE GROUND																	TEMP = 15 C	
(RUNUP IN THE A/F32T-9																	BAR PRESS = 0.760 M HG	
(NSS MCCONNELL AFB																	REL HUMID = 70 %	
																	PAGE 3	

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:									
4.3		1/3 OCTAVE BAND										OMEGA 1.5									
		DISTANCE = 100 METERS										TEST DP-019-200									
		NOISE SOURCE/SUBJECT:										METEOROLOGY:									
		(OPERATION:										TEMP = 15 C									
		(INTMD POWER (80.3x RPM)										BAR PRESS = 0.760 M HG									
		(SINGLE ENGINE GROUND										REL HUMID = 70 x									
		(RUNUP IN THE A/F327-9																			
		(MCCONNELL AFB, KANSAS																			
		(FAR FIELD NOISE										PAGE 3									
		(NSS MCCONNELL AFB																			
FREQ		ANGLE (DEGREES)										**									
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
25	81	80	79	74	71	70	71	70	71	70	72	73	72	72	70	71	69	73	74		
31.5	80	80	73	72	68	67	65	68	71	69	68	68	68	69	68	70	68	69	68		
40	74	75	70	70	65	65	65	68	71	69	68	68	68	67	66	65	66	68	66		
50	71	69	69	71	63	62	66	67	66	65	65	65	65	66	64	63	61	70	69		
63	72	72	69	72	62	62	62	65	69	64	64	64	64	66	62	61	64	70	78		
80	67	67	66	70	63	60	61	61	65	61	60	60	60	63	60	57	59	70	74		
100	68	71	67	70	58	62	59	63	64	57	59	59	59	59	57	56	57	69	67		
125	69	70	70	71	55	55	55	59	60	59	55	55	54	56	55	53	55	58	60		
160	69	70	70	72	50	51	55	58	56	51	50	50	50	53	55	49	52	66	56		
200	66	68	69	70	51	53	54	55	55	53	52	50	50	51	51	50	49	60	55		
250	60	62	62	65	48	51	51	53	55	49	49	49	49	51	50	50	49	60	56		
315	57	58	60	64	45	47	52	53	51	47	48	48	48	52	47	47	48	61	55		
400	56	58	58	61	44	49	50	52	51	47	47	47	47	51	48	48	48	61	55		
500	55	58	58	60	43	47	49	49	51	49	46	46	48	46	48	47	47	60	53		
630	58	62	63	64	42	47	50	50	50	48	46	46	49	47	47	49	46	56	52		
800	58	61	63	62	41	44	48	47	49	47	44	45	45	45	46	46	44	53	50		
1000	59	62	66	62	40	43	47	46	47	46	43	45	45	45	45	46	43	50	49		
1250	59	61	65	59	40	42	47	46	47	46	44	43	43	43	43	43	41	48	47		
1600	58	59	60	57	38	39	45	43	44	42	42	39	41	41	42	38	39	45	45		
2000	65	65	64	59	45	48	55	58	58	52	48	48	48	40	42	41	42	45	48		
2500	60	59	59	57	39	41	48	49	49	45	41	37	37	37	40	40	38	42	44		
3150	58	57	58	58	34	35	44	43	42	40	37	37	35	35	38	36	36	40	42		
4000	63	60	60	61	34	38	49	46	46	42	39	39	34	34	35	35	36	37	39		
5000	59	57	58	61	34	34	44	43	41	39	37	37	33	33	32	37	35	35	37		
6300	60	57	59	62	34	34	45	43	41	40	37	37	33	33	37	36	36	36	36		
8000	59	59	62	67			43	41	38	39	37	37	35	35	38	37	37	36	37		
10000	56	55	58	63			39	39	35	38	34	34	34	34	38	36	36	37	37		
OVERALL	85	85	83	82	75	74	76	77	77	77	76	76	76	76	74	75	74	79	81		

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)															IDENTIFICATION:	
4.3		1/3 OCTAVE BAND																
		DISTANCE = 100 METERS															OMEGA 1.5	
																	TEST DP-0T9-200	
																	RUN 03	
																	05 MAR 87	
																	PAGE 3	

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																			
IDENTIFICATION:																			
4.4 DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT:																			
(OPERATION:) METEOROLOGY:																			
(BACKGROUND NOISE) TEMP = 15 C																			
(SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG																			
(RUNUP IN THE A/F32T-9) REL HUMID = 70 %																			
(NSS MCCONNELL AFB)																			
PAGE 4																			
ANGLE (DEGREES)																			
0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	99
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC	79	79	79	80	68	69	67	67	72	73	72	73	74	75	73	71	78	77	
OASLA	74	69	73	75	49	50	54	54	56	57	57	58	65	65	63	60	68	63	
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL	66	61	65	67	47	47	46	47	49	48	50	50	56	56	55	52	58	53	
ANNNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT	86	82	85	85	61	61	68	65	69	70	70	70	76	76	74	71	78	76	
C	1	1	1	0	1	0	1	1	1	0	0	0	0	1	0	0	0	0	1

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																			
4.4 DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:) IDENTIFICATION:																			
TF33-P3(GP) ENGINE	(	FLIGHT IDLE(57.3x RPM)	(	TEMP	=	15 C	)	OMEGA 1.5											
IN THE A/F32T-9 NSS AT	(	SINGLE ENGINE GROUND	(	BAR PRESS	=	0.760 M HG	)	TEST DP-019-200											
MCCONNELL AFB, KANSAS	(	RUMUP IN THE A/F32T-9	(	REL HUMID	=	70 %	)	RUN 01											
FAR FIELD NOISE	(	NSS MCCONNELL AFB	(				)	05 MAR 87											
								PAGE 4											
HAZARD/PROTECTION ** ANGLE (DEGREES)																			
	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC	78	79	78	80	73	70	72	72	74	70	69	72	73	73	73	73	76	77	
OASLA	70	71	71	72	61	53	55	55	58	53	52	55	54	54	52	52	60	64	
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL	63	64	63	64	50	44	48	47	47	44	45	46	46	46	43		52	55	
ANNNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT	84	85	85	88	73	66	70	69	71	67	67	69	68	67	66		72	76	
C	1	1	1	1	0	1	1	0	0	1	1	1	0	0	1		0	0	
** NO DATA COLLECTED																			

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																			
IDENTIFICATION:																			
4.4 DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:)																			
(IF33-P3(GP) ENGINE (INTMD POWER (80.3% RPM)) TEMP = 15 C)																			
(IN THE A/F32T-9 NSS AT (SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG)																			
(MCCONNELL AFB, KANSAS (RUNUP IN THE A/F32T-9) REL HUMID = 70 %)																			
(FAR FIELD NOISE (NSS MCCONNELL AFB)) PAGE 4																			
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC 82 83 80 81 72 72 72 74 75 74 74 73 74 72 72 72 78 80																			
OASLA 72 72 74 73 53 55 61 62 62 57 56 55 55 55 54 54 64 61																			
T 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																			
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL 64 65 66 65 44 47 54 54 53 49 49 46 47 47 46 53 52																			
ANNNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT 89 89 89 89 69 72 79 81 80 75 73 69 67 68 69 77 78																			
C 2 2 1 1 2 3 3 4 4 3 3 0 0 0 1 0 1																			
NO DATA COLLECTED.																			

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:	
4.4 DISTANCE = 100 METERS																	OMEGA 1.5	
NOISE SOURCE/SUBJECT:																	TEST DP-019-200	
(OPERATION:																	RUN 03	
(MILITARY POWER(90.0X RPM)																		
(SINGLE ENGINE GROUND																		
IN THE A/F32T-9 NSS AT																	15 C	
MCCONNELL AFB, KANSAS																	BAR PRESS = 0.760 M HG	
(RUNUP IN THE A/F32T-9																	05 MAR 87	
(NSS MCCONNELL AFB																	REL HUMID = 70 X	
FAR FIELD NOISE																	PAGE 4	
METEOROLOGY:																		
TEMP = 15 C																		
BAR PRESS = 0.760 M HG																		
REL HUMID = 70 X																		
PAGE 4																		
HAZARD/PROTECTION																		
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																		
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																		
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 3, APRIL 82)																		
NO PROTECTION																		
OASLC																	92 91 88 85 81 83 85 86 86 87 85 82 81 82 84 85 86 86	
OASLA																	75 74 74 74 56 62 64 66 66 66 64 62 62 63 65 66 68 67	
T																	1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440	
COMMUNICATION																		
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																		
PSIL																	67 67 67 66 51 55 59 58 57 56 54 56 58 56 58 60 59	
ANNNOYANCE																		
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																		
TONE CORRECTION (C IN DB)																		
PNLT																	91 90 89 90 68 76 79 82 81 82 79 74 74 74 78 80 81 81	
C																	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1	
NO DATA COLLECTED.																		

(	TABLE	SOUND PRESSURE LEVEL (DB)	(	IDENTIFICATION:	(
(	4.5	OCTAVE BAND	((
(		DISTANCE = 100 METERS	(	OMEGA 1.5	(
(			(	TEST DP-019-200	(
(	NOISE SOURCE/SUBJECT:	(	OPERATION:	METEOROLOGY:	(
(	TF33-P3(OP) ENGINE	(	BACKGROUND NOISE	TEMP = 15 C	(
(	IN THE A/F32T-9 NSS AT	(	SINGLE ENGINE GROUND	BAR PRESS = 0.760 M HG	(
(	MCCONNELL AFB, KANSAS	(	RUNUP IN THE A/F32T-9	REL HUMID = 70 X	(
(	FAR FIELD NOISE	(	NSS MCCONNELL AFB	PAGE 5	(
(	FREQ	(	ANGLE (DEGREES)	**	(
(	(HZ)	(	0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180		(
(	31.5	73 77 77 76 70 71 68 67 73 74 73 75 74 76 73 72 78 77			(
(	63	73 75 73 73 63 62 62 62 66 70 68 68 69 70 68 65 74 73			(
(	125	72 71 71 72 58 55 57 58 60 61 61 59 63 63 61 61 69 70			(
(	250	68 66 69 67 51 52 54 55 59 59 57 53 60 59 56 62 58			(
(	500	69 64 67 72 46 50 51 52 53 54 56 55 61 62 60 56 66 61			(
(	1000	71 65 69 72 42 43 49 50 52 52 53 54 62 63 60 58 64 60			(
(	2000	66 61 66 66 38 37 45 45 45 47 46 48 56 55 55 51 57 50			(
(	4000	56 53 58 57 42 37 38 41 40 42 46 43 44 41 46 42			(
(	8000	45 45 48 48 41 43 43 43 43 45 44 42 45 44 44 43			(
(	OVERALL	80 80 80 81 71 71 69 69 74 76 74 76 77 75 74 80 79			(
(** NO DATA COLLECTED.																			(

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																			
OCTAVE BAND																					
DISTANCE = 100 METERS																					
NOISE SOURCE/SUBJECT:		OPERATION:		METEOROLOGY:																OMEGA 1.5	
TF33-P3(GP) ENGINE		(FLIGHT IDLE(57.3x RPM)		(TEMP = 15 C																TEST DP-019-200	
IN THE A/F321-9 NSS AT		(SINGLE ENGINE GROUND		(BAR PRESS = 0.760 M HG																RUN 01	
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F321-9		(REL HUMID = 70 %																05 MAR 87	
FAR FIELD NOISE		(NSS MCCONNELL AFB																		PAGE 5	
FREQ		ANGLE (DEGREES)																			
(HZ)		**	60	50	40	330	340	350	0	70	80	90	100	110	120	130	140	150	160	170	180
31.5	71	76	71	79	73	71	72	73	72	73	72	69	69	72	74	73	73	76	73		
63	72	74	71	74	69	65	68	68	71	67	65	67	65	70	69	71	74	75			
125	74	74	75	74	64	63	63	64	66	62	58	61	62	59	60	64	67				
250	68	69	71	69	65	55	55	57	62	53	52	56	53	53	51	56	64				
500	63	65	63	65	61	51	53	51	56	48	49	53	51	52	48	48	58	64			
1000	65	66	66	65	51	47	49	50	50	47	47	49	48	48	45	45	56	59			
2000	62	63	63	61	49	40	45	44	43	43	43	43	43	42	41	41	49	52			
4000	60	61	61	64	38	36	44	41	40	40	40	40	40	41	41	41	44	45			
8000	59	61	62	68			43	37				38	42	40	42	42	37	39	40		
OVERALL	79	80	79	82	75	73	74	75	76	72	71	74	76	75	75	75	78	78			

** NO DATA COLLECTED.

== NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:		
4.5		OCTAVE BAND																		
		DISTANCE = 100 METERS																		
NOISE SOURCE/SUBJECT:		OPERATION:																METEOROLDOY:		
TF33-P3(GP) ENGINE		INTMD POWER (80.3X RPM)																TEMP = 15 C		
IN THE A/F32T-9 NSS AT		SINGLE ENGINE GROUND																BAR PRESS = 0.760 M HG		
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																REL HUMID = 70 %		
FAR FIELD NOISE		NSS MCCONNELL AFB																PAGE 5		
FREQ		ANGLE (DEGREES)																**		
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
31.5		84	84	80	77	74	73	75	75	75	76	75	75	75	73	74	73	73	75	75
63		75	75	73	76	68	66	69	72	69	68	68	70	67	66	67	67	75	80	75
125		74	75	74	76	60	63	63	66	66	60	61	61	60	59	60	59	72	68	72
250		68	70	70	72	53	56	57	58	60	55	54	56	55	54	53	53	65	60	65
500		61	65	65	67	48	52	55	56	54	51	53	53	52	53	52	52	64	58	64
1000		64	66	69	66	46	48	52	51	53	49	49	49	50	50	48	55	53	55	53
2000		67	67	66	63	47	49	56	59	58	53	49	44	46	45	45	49	51	49	51
4000		65	63	64	65	37	41	51	49	48	45	43	39	40	41	40	43	43	45	43
8000		63	62	65	69		48	48	46	43	44	41	39		43	41	41	41	42	41
OVERALL		85	85	83	82	75	74	76	77	77	77	76	76	74	74	75	74	79	81	81

** NO DATA COLLECTED.

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																
4.5	OCTAVE BAND																	
	DISTANCE = 100 METERS																	
NOISE SOURCE/SUBJECT:		METEOROLOGY:																
TF33-P3(OP) ENGINE		OPERATION:																
IN THE A/F32T-9 NSS AT		MILITARY POWER(90.0X RPM)																
MCCONNELL AFB, KANSAS		SINGLE ENGINE GROUND																
FAR FIELD NOISE		RUNUP IN THE A/F32T-9																
		NSS MCCONNELL AFB																
FREQ		ANGLE (DEGREES)																
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160
31.5	93	92	90	86	83	83	83	86	87	87	88	86	84	82	84	85	86	87
63	89	86	83	79	75	75	79	81	81	83	82	80	77	77	77	80	81	82
125	79	78	77	76	65	65	72	74	72	73	74	71	67	68	69	71	73	75
250	73	74	71	72	59	65	64	66	66	68	69	63	62	60	60	66	64	68
500	66	69	67	68	52	57	58	58	62	62	63	61	59	59	61	63	63	65
1000	67	68	68	67	47	53	53	55	58	59	58	59	56	56	58	60	61	63
2000	66	66	65	63		50	53	53	57	56	55	54	52	51	54	55	57	58
4000	68	66	66	66		46	54	54	58	54	53	51	48		48	48	52	51
8000	66	64	66	70		50	50	54	54	49	48							
OVERALL	94	94	91	87	84	85	85	87	88	89	89	87	85	83	85	86	87	88

** NO DATA COLLECTED.

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APPENDIX C
Far-Field Noise on the
TF30-P7 Engine

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TABLE 5.1

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS
TF30-P7 ENGINE IN THE A/F32T-9 NOISE SUPPRESSOR SYSTEM
McCONNELL AFB, KANSAS

Date of Test: 22 February 1986

Time of Test: 1100

Engine Operation

Idle	66.4 %RPM
80 %	80.0 %RPM
Military Power	97.9 %RPM
Afterburner Power	95.1 %RPM

Meteorology

Temperature	11 Deg C
Bar Pressure	0.767 M Hg
Rel Humidity	60 %
Winds - Speed	5 - 8 Knots (Gusts to 15)
- Direction	10 Deg (True)

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
5.2 DISTANCE = 100 METERS																	OMEGA 1.5	
																	TEST DP-019-300	
NOISE SOURCE/SUBJECT:																	RUN 05	
TF30-P7 ENGINE																		
IN THE A/F32T-9 MSS AT																	TEMP = 11 C	
MCCONNELL AFB, KANSAS																	BAR PRESS = 0.767 M HG	
FAR FIELD NOISE																	REL HUMID = 60 %	
																	PAGE 2	
FREQ																	**	
(HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
(25	57	58	59	61	56	61	66	61	55	62	62	69	67	66	63	65		67 67
(31.5	59	58	60	61	56	60	63	61	56	61	61	69	66	65	62	62		67 66
(40	61	60	59	59	56	57	62	59	53	59	59	68	64	63	61	61		64 65
(50	63	60	60	60	52	55	58	56	52	58	58	67	64	62	59	64		64 65
(63	65	63	61	60	49	53	57	55	53	56	60	66	62	60	59	62		61 62
(80	66	58	69	64	49	52	52	53	54	55	60	63	61	61	56	62		60 59
(100	61	57	61	59	47	50	50	55	53	53	57	61	57	56	54	65		61 59
(125	67	63	69	67	46	48	47	52	50	51	54	58	54	54	52	59		57 56
(160	58	57	58	58	42	46	44	47	45	47	51	55	51	52	55	57		56 55
(200	62	64	61	62	43	48	49	49	48	52	49	55	49	51	55	56		55 53
(250	58	58	57	60	38	40	44	43	43	44	47	51	46	50	50	54		52 50
(315	54	52	54	56	36	41	39	40	42	41	44	50	46	51	53	56		52 49
(400	54	53	55	56	37	43	38	42	44	44	43	49	47	51	54	58		51 51
(500	51	52	52	54	38	42	41	42	41	44	43	45	46	49	52	53		48 53
(630	47	50	52	51	32	36	39	40	39	40	42	46	45	46	53	54		48 51
(800	49	52	53	55	31	36	38	38	41	40	44	46	43	43	50	55		46 47
(1000	49	53	54	55	28	35	35	37	38	39	43	46	42	42	51	52		46 45
(1250	51	54	55	56	26	33	34	37	35	38	51	43	38	42	51	52		46 46
(1600	48	53	52	54	23	32	31	34	34	34	44	42	34	41	48	50		44 46
(2000	45	50	49	50	22	28	28	33	33	31	34	39	31	37	46	47		41 43
(2500	45	48	48	50	23	26	26	30	30	29	34	38	28	36	44	46		40 41
(3150	39	44	43	46	23	24	24	27	26	25	30	37		36	40	43		39 37
(4000	37	39	39	41	22	23	21	24	25	23	26	34		31	37	39		36 35
(5000	33	36	36	38	19													34 31
(6300	28	31	31	33														31 29
(8000	25	26	26	28														28 29
(10000	22	22	22	25														
(OVERALL	73	71	74	73	62	66	69	67	63	67	69	76	73	71	70	73		73 73

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

[illegible]

TABLE MEASURED SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																	
5.2 1/3 OCTAVE BAND																			
DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT:		OPERATION:		METEOROLOGY:															
TF30-P7 ENGINE		INTMD POWER (80.0X RPM)		TEMP = 11 C															
IN THE A/F32T-9 NSS AT		SINGLE ENGINE GROUND		BAR PRESS = 0.767 M HG															
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9		REL HUMID = 60 X															
FAR FIELD NOISE		NSS MCCONNELL AFB																	
FREQ (HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	83	79	81	76	71	69	68	73	73	72	69	71	70	68	72	68	71	72	
31.5	80	78	75	71	63	65	68	69	70	71	68	68	66	67	69	68	71	71	
40	74	73	72	68	61	64	67	70	68	69	67	66	65	65	66	70	70	71	
50	66	64	68	63	58	60	64	63	64	65	65	64	62	63	63	65	71	68	
63	68	65	68	63	56	59	63	62	62	63	63	61	60	63	62	65	69	67	
80	65	64	65	63	53	56	61	61	60	62	62	58	58	60	60	62	66	64	
100	63	63	64	64	51	54	57	58	57	59	59	56	55	58	58	61	64	61	
125	64	67	65	68	48	52	55	55	55	56	56	54	53	56	58	58	62	58	
160	64	65	64	69	46	49	51	54	51	52	52	51	49	53	56	55	57	56	
200	64	66	64	66	50	49	50	53	52	51	50	49	47	50	52	51	54	56	
250	61	63	62	61	44	47	47	49	49	49	47	46	45	49	50	48	51	54	
315	61	61	61	60	43	46	46	49	49	48	47	46	44	49	51	51	52	52	
400	62	63	63	62	44	45	47	53	52	49	45	49	46	51	51	55	54	52	
500	57	59	58	59	41	42	43	49	48	46	42	46	41	49	49	55	55	55	
630	58	58	58	60	38	38	40	49	46	46	41	46	41	49	48	56	53	55	
800	57	57	57	58	36	36	40	46	45	44	39	43	40	45	46	53	56	54	
1000	56	56	57	58	34	34	37	43	44	42	38	41	38	45	45	54	53	50	
1250	54	55	56	57	32	32	36	41	42	41	37	39	37	44	45	53	53	50	
1600	54	54	54	55	31	30	36	40	42	40	36	36	34	40	42	50	52	48	
2000	53	52	52	53	32	30	39	39	41	40	36	35	32	38	40	48	48	45	
2500	63	60	57	54	36	38	50	53	52	50	45	47	36	41	42	46	46	44	
3150	57	55	52	49	32	36	44	47	47	45	40	42	31	36	37	42	42	39	
4000	49	48	46	44	30	33	39	40	38	37	32	32	31	29	30	35	36	33	
5000	52	50	47	42	28	32	40	42	39	37	31	31				28	29	31	
6300	48	45	43	38	28	30	36	37	34	33									
8000	45	42	40	37	28		33	33	30	28									
10000				34			27												
OVERALL	85	83	83	80	72	72	74	77	76	76	74	74	73	73	75	75	78	78	

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
1/3 OCTAVE BAND																			
5.2		DISTANCE = 100 METERS																OMEGA 1.5	
																		TEST DP-OT9-300	
																		RUN 03	
																		05 MAR 87	
																		PAGE 2	

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
5.2		1/3 OCTAVE BAND																	OMEGA 1.5	
		DISTANCE = 100 METERS																	TEST DP-019-300	
NOISE SOURCE/SUBJECT:		(OPERATION:)																	RUN 04	
TF30-P7 ENGINE		(AFTERBURNER POWER(95.1x))																	TEMP = 11 C	
IN THE A/F32T-9 MSS AT		(SINGLE ENGINE GROUND)																	BAR PRESS = 0.767 M HG	
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9)																	REL HUMID = 60 x	
FAR FIELD NOISE		(MSS MCCONNELL AFB)																	PAGE 2	
FREQ (HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
3.15					80	76	74	81	84	83	83	87	85	80	82	82			77 88	
4					87	88	88	88	88	88	89	89	88	90	89	89			87 87	
5					82	82	85	82	83	84	84	85	85	84	87	82	84		82 89	
6.3					81	83	81	81	84	84	84	87	85	87	88	89			86 88	
8					86	84	86	89	88	90	87	89	89	90	89	92			89 90	
10					87	88	89	90	91	91	91	94	91	92	89	94			95 92	
12.5					89	88	90	94	94	95	93	92	93	95	98	98			98 96	
16					92	92	95	95	96	96	97	96	95	99	100	101			97 101	
20					90	89	93	94	93	97	95	95	94	96	97	94			98 96	
25				89	88	89	94	92	91	96	93	92	89	95	98	94			95 98	
31.5				89	85	86	91	88	89	93	91	89	86	92	94	97			96 96	
40				89	85	83	85	88	88	88	88	88	86	85	87	93			95 96	
50				89	85	81	84	87	87	86	87	88	86	86	89	91			95 95	
63				85	85	89	79	78	80	84	83	86	85	81	84	88			92 93	
80				83	82	84	74	78	81	83	82	84	82	78	80	84			86 87	
100				80	81	82	71	70	77	79	79	79	75	76	79	82			82 81	
125				78	80	81	69	66	75	77	77	73	73	73	76	79			79 78	
160				78	78	80	66	64	74	73	74	75	77	76	71	74			76 76	
200				77	77	78	66	62	72	71	72	74	76	75	70	73			74 75	
250				76	76	77	64	61	70	68	69	72	73	72	69	70			72 73	
315				73	72	76	63	57	67	65	66	70	69	67	75	75			72 74	
400				69	69	71	59	52	64	63	64	68	68	69	75	78			76 76	
500				66	67	69	59	48	61	63	64	66	68	71	65	77			80 80	
630				64	65	65	55	46	61	63	62	65	69	72	63	69			77 76	
800				64	65	64	53	45	60	62	62	62	60	65	72	75			73 72	
1000				64	63	63	53	44	58	60	61	63	68	70	72	74			73 72	
1250				62	61	63	51	44	58	58	61	63	66	69	69	71			72 71	
1600				61	61	63	50	43	56	57	60	61	65	66	67	69			70 69	
2000				60	60	62	49	42	54	56	59	60	63	64	65	67			68 68	
2500				59	59	61	48	39	52	54	57	59	62	62	63	65			66 65	
3150				58	57	60			50	52	54	56	59	52	53	61			62 62	
4000				59	58	61			47	51	52	52	55	55	56					
5000				55	54	57			43					48	50					
6300				51	50	53														
8000						50														
10000						49														
OVERALL	98	96	101	93	98	99	101	102	102	104	103	102	101	104	106	106			106 106	

NO BACKGROUND CORRECTION APPLIED.
 ** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
5.3		1/3 OCTAVE BAND																OMEGA 1.5	
		DISTANCE = 100 METERS																TEST DP-019-300	
NOISE SOURCE/SUBJECT:		OPERATION:																METEOROLOGY:	
TF30-P7 ENGINE		BACKGROUND NOISE																TEMP = 15 C	
IN THE A/F32T-9 NSS AT		SINGLE ENGINE GROUND																BAR PRESS = 0.760 M HG	
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																REL HUMID = 70 X	
FAR FIELD NOISE		NSS MCCONNELL AFB																PAGE 3	
FREQ		ANGLE (DEGREES)																	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
25	37	58	59	61	56	61	66	61	66	61	62	62	69	67	66	63	65	67	67
31.5	59	58	60	61	56	60	63	61	63	61	56	60	61	69	66	65	62	67	66
40	61	59	59	59	56	57	62	58	58	52	59	59	59	68	64	63	60	61	63
50	63	60	60	60	52	55	58	56	56	52	57	58	57	67	64	62	59	64	65
63	65	63	61	60	49	53	56	55	55	52	56	59	65	62	60	59	62	61	62
80	66	58	69	64	49	52	52	53	54	53	53	60	63	61	61	56	62	60	60
100	61	57	61	59	46	50	50	50	55	53	53	56	61	56	56	53	65	61	59
125	67	63	69	67	46	48	47	52	52	50	51	54	58	54	54	52	59	57	56
160	58	57	58	58	42	46	44	47	47	45	47	51	55	51	52	55	57	56	55
200	62	64	61	62	43	47	49	49	49	48	52	49	55	49	50	54	56	55	53
315	53	51	54	56	35	41	39	40	41	41	41	44	44	50	46	50	54	52	50
400	54	53	54	56	37	43	38	41	44	44	44	43	49	46	50	53	56	51	51
500	51	52	52	54	37	42	40	42	41	41	44	43	45	45	49	52	52	48	53
630	47	50	51	51	32	36	39	40	39	40	40	42	46	45	46	53	54	47	51
800	49	52	53	53	31	36	38	38	41	40	40	44	46	43	43	50	55	46	47
1000	49	53	54	55	28	35	35	37	38	39	39	43	46	42	42	51	52	46	45
1250	51	54	55	56	26	33	34	36	35	38	38	51	43	38	42	51	52	46	45
1600	48	53	52	54	23	32	31	34	34	33	34	44	42	34	41	48	50	44	46
2000	45	50	49	50	22	28	28	28	33	33	31	34	39	31	37	46	47	41	43
2500	45	49	48	50	23	26	26	30	30	30	29	34	38	29	36	44	46	41	42
3150	40	44	43	46	23	24	24	24	27	26	25	30	37		37	41	43	39	37
4000	38	40	40	42	23	24	22	25	25	26	24	27	35		32	38	40	37	36
5000	34	37	37	39	20	25	23	24	25	26	24	28	36		33	39	39	35	32
6300	30	33	32	35		25	22	24	25	25	22	23	34		29	38	35	32	31
8000	27	28	29	31		26	24	25	26	24	21	30			30	39	33	30	31
10000	25	25	25	28		26	25	25	25	22	25	20							
OVERALL	73	71	74	73	62	66	69	67	67	63	67	69	75	73	71	70	73	73	73

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
5.3		1/3 OCTAVE BAND																	OMEGA 1.5	
		DISTANCE = 100 METERS																	TEST DP-019-300	
NOISE SOURCE/SUBJECT:		OPERATION:																	RUN 01	
TF30-P7 ENGINE		IDLE POWER (66.42x RPM)																	TEMP = 15 C	
IN THE A/F32T-9 NSS AT		SINGLE ENGINE GROUND																	BAR PRESS = 0.760 M HG	
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																	REL HUMID = 70 X	
FAR FIELD NOISE		NSS MCCONNELL AFB																	PAGE 3	
FREQ		ANGLE (DEGREES)																	**	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	69	64	65	66	67	67	65	63	57	62	63	63	63	70	67	67	63	69	69	69
31.5	71	70	69	67	67	67	65	63	55	63	63	61	62	68	68	67	61	70	69	69
40	73	73	72	68	63	63	63	62	62	65	64	63	61	67	68	68	67	68	68	68
50	71	67	68	66	62	59	59	59	55	60	61	60	59	67	65	64	66	67	66	66
63	69	65	67	64	60	57	56	55	55	59	58	58	57	65	64	62	62	66	64	64
80	67	64	66	63	56	55	55	56	55	61	60	61	59	62	63	60	60	63	61	61
100	66	63	65	63	55	52	52	57	54	63	57	57	54	61	60	58	57	61	59	59
125	66	65	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
160	65	63	65	64	47	49	58	51	56	54	51	51	51	55	55	57	58	56	54	54
200	62	62	65	63	49	50	57	49	66	51	48	50	52	52	52	55	57	52	51	51
250	61	60	62	60	44	45	56	49	61	48	47	48	48	48	47	53	56	52	48	48
315	61	59	60	60	42	43	53	53	50	49	49	51	48	47	50	53	56	52	47	47
400	62	60	62	63	43	45	50	51	57	51	49	51	49	46	51	52	54	50	47	47
500	58	58	58	57	40	41	45	48	51	49	49	46	46	43	47	47	51	47	44	44
630	58	58	57	56	37	38	41	46	47	49	49	42	44	40	46	47	49	45	43	43
800	57	56	55	55	36	36	40	45	45	45	46	41	42	39	44	46	48	43	43	43
1000	54	53	54	55	33	34	39	43	45	44	44	40	41	38	43	45	45	41	40	40
1250	53	52	52	55	32	33	37	42	43	43	42	39	39	38	41	44	43	39	38	38
1600	52	52	52	55	30	31	37	42	43	43	40	38	38	36	39	41	41	37	38	38
2000	57	54	52	53	31	33	44	48	48	48	42	42	40	37	39	41	41	37	40	40
2500	48	47	48	50	33	32	35	38	39	39	37	35	34	31	34	37	37	33	34	34
3150	46	45	46	48	33	30	35	36	36	37	35	31	31	30	30	33	34	31	31	31
4000	44	44	44	45	34	30	36	37	36	37	33	30	29	33	33	29	32	29	35	35
5000	42	42	42	42	33	34	34	37	33	33	29	33	32	32	30	31	32	32	33	33
6300	39	40	38	37	34	32	34	34	31	29	29	30	32	32	30	30	32	32	31	31
8000	35	36	34	35	33	33	33	33	31	27										
10000	33	33	33	33	33	33	33	33	27											
OVERALL	79	78	78	76	72	70	70	70	67	74	71	70	69	75	75	74	73	76	75	75

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
DISTANCE = 100 METERS																	OMEGA 1.5	
NOISE SOURCE/SUBJECT:																	TEST DP-019-300	
(TF30-P7 ENGINE																	RUN 02	
(IN THE A/F32T-9 NSS AT																	05 MAR 87	
(MCCONNELL AFB-KANSAS																		
(FAR FIELD NOISE																	PAGE 3	
(NSS MCCONNELL AFB																		
METEOROLOGY:																		
(INTMD POWER (80.0X RPM)																		
(SINGLE ENGINE GROUND																		
(RUNUP IN THE A/F32T-9																		
(REL HUMID = 70 %																		
ANGLE (DEGREES)																		
FREQ (HZ)																		
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																		
25	82	79	81	76	71	69	68	73	73	72	69	71	70	68	72	68	71	72
31.5	80	78	75	71	63	65	68	69	70	71	68	68	66	67	69	68	71	71
40	74	73	72	68	61	64	67	70	68	68	66	65	64	65	66	69	70	70
50	66	64	68	63	58	60	64	63	64	65	65	64	62	63	63	65	71	68
63	68	65	67	63	56	58	62	61	62	62	63	61	60	62	62	65	69	67
80	65	64	64	63	53	56	61	61	60	62	62	58	58	60	60	62	66	64
100	63	62	64	64	50	54	57	57	57	58	58	56	55	57	57	60	63	61
125	63	66	65	68	48	52	55	55	55	56	56	54	53	56	58	58	62	58
160	64	65	63	69	46	49	51	54	51	52	52	51	49	53	56	55	57	56
200	64	65	64	65	50	49	50	53	52	51	49	49	47	50	52	51	54	56
250	61	63	62	61	44	47	47	49	49	49	47	46	45	49	50	48	51	54
315	61	61	60	60	43	46	46	49	49	48	47	46	44	49	51	51	52	53
400	62	63	62	62	43	45	47	53	51	48	44	48	46	51	51	55	54	52
500	57	58	58	59	40	41	42	49	48	46	41	46	44	49	49	55	55	55
630	58	58	58	60	38	38	40	48	46	46	41	46	41	48	48	55	53	54
800	57	57	56	58	36	36	40	46	45	44	39	43	40	45	46	53	56	54
1000	56	56	57	58	34	34	37	43	44	42	38	41	38	45	45	54	53	50
1250	54	55	56	57	32	32	36	40	42	41	37	39	36	44	45	53	53	50
1600	54	54	54	55	31	30	36	40	42	40	36	36	34	40	42	50	52	48
2000	53	52	52	53	32	30	39	39	41	40	36	35	32	38	40	48	48	45
2500	63	60	57	54	36	38	50	53	53	50	45	47	36	41	42	47	47	44
3150	58	55	52	50	33	36	45	48	47	45	40	42	32	37	37	42	42	40
4000	50	49	47	45	31	34	40	41	39	38	33	33	32	30	31	36	37	34
5000	53	51	48	43	29	33	41	43	40	38	32	32				30	32	32
6300	49	47	45	40	30	31	37	39	35	34							29	
8000	47	45	42	39	31	35	35	35	32	30								
10000				37	30	30												
OVERALL	85	83	83	80	72	72	74	77	76	76	74	74	73	73	75	75	78	78

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
5.3		1/3 OCTAVE BAND																OMEGA 1.5	
		DISTANCE = 100 METERS																TEST DP-019-300	
NOISE SOURCE/SUBJECT:		OPERATION:																RUN 03	
TF30-P7 ENGINE		MILITARY POWER (97.9 X RPM)																TEMP = 15 C	
IN THE A/F32T-9 NSS AT		SINGLE ENGINE GROUND																BAR PRESS = 0.760 M HG	
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																REL HUMID = 70 X	
FAR FIELD NOISE		NSS MCCONNELL AFB																PAGE 3	
FREQ		ANGLE (DEGREES)																**	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
25	83	80	81	82	78	80	83	81	83	81	82	81	82	79	81	85	79	83	84
31.5	80	79	80	77	81	82	79	81	82	82	82	82	79	77	80	82	83	84	83
40	79	80	77	74	79	80	79	80	80	80	80	80	77	76	77	80	83	82	82
50	78	76	71	75	72	77	77	77	77	77	77	77	74	74	76	77	80	80	80
63	80	76	77	70	74	73	78	76	77	77	77	77	73	73	72	76	78	78	78
80	75	73	72	69	70	71	76	76	75	77	74	70	69	70	73	74	75	75	75
100	73	71	70	65	69	71	72	72	73	72	70	68	64	67	68	69	71	73	71
125	70	69	69	68	63	69	71	70	70	70	70	68	64	64	67	67	69	71	69
160	68	67	67	67	60	67	67	67	67	68	69	65	62	62	64	65	67	69	66
200	67	67	66	65	60	67	65	65	65	66	66	61	59	61	62	63	62	64	63
250	64	64	63	61	55	62	62	62	61	62	64	57	55	58	59	59	59	60	62
315	62	61	60	61	51	59	58	58	60	61	55	53	53	56	58	58	61	60	64
400	61	63	61	64	49	54	55	55	58	60	57	52	52	57	59	61	66	65	67
500	57	58	58	61	45	49	52	53	57	58	56	51	56	51	59	61	66	63	63
630	56	58	58	58	43	47	52	51	54	56	56	49	49	54	58	59	64	62	61
800	56	57	56	56	42	46	51	50	53	55	55	47	47	52	57	58	61	61	60
1000	55	55	55	57	41	45	49	48	51	54	55	47	47	51	56	57	59	59	58
1250	55	54	54	55	40	45	47	48	52	53	54	47	47	50	55	56	59	57	56
1600	54	53	54	54	38	43	47	47	50	52	52	44	44	49	54	54	57	57	54
2000	53	52	53	53	39	42	47	47	50	51	51	45	48	48	53	53	56	55	53
2500	52	50	50	51	38	40	46	46	49	50	50	46	46	45	51	51	54	53	51
3150	49	48	48	48	38	44	44	45	47	48	48	44	44	43	49	48	51	50	49
4000	49	48	47	45	38	44	44	44	44	44	46	45	39	40	46	46	48	48	46
5000	53	50	49	42	45	45	45	46	46	44	45	43	43	43	43	43	45	45	44
6300	57	44	44	44	40	40	40	40	40	40	40	40	40	41	39	41	42	42	40
8000	43																		
10000	42																		
OVERALL	88	86	86	84	86	84	87	87	87	87	88	87	85	84	86	89	89	89	89

** NO DATA COLLECTED.

TABLE	SOUND PRESSURE LEVEL (DB)	IDENTIFICATION:
5.3	1/3 OCTAVE BAND	OMEGA 1.5
	DISTANCE = 100 METERS	TEST DP-OT9-300
NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
TF30-P7 ENGINE	AFTERBURNER POWER(95.1x)	TEMP = 15 C
IN THE A/F32T-9 NSS AT	SINGLE ENGINE GROUND	BAR PRESS = 0.760 M HG
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9	REL HUMID = 70 x
FAR FIELD NOISE	NSS MCCONNELL AFB	PAGE 3
FREQ	ANGLE (DEGREES)	**
(HZ)	0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180	
3.15	80 76 74 81 84 83 83 87 85 80 82 82 82 82 82 82 82	77 88
4	87 88 88 88 88 88 88 89 89 89 89 89 89 89 89 89 89	87 87
5	82 82 85 83 84 85 84 85 85 84 87 82 84 84 84 84 84	82 89
6.3	81 83 81 81 84 84 83 87 85 87 88 89 89 89 89 89 89	86 88
8	85 84 85 89 87 90 87 90 89 89 89 90 92 88 88 88 88	88 90
10	86 88 89 90 90 91 91 91 94 91 92 89 93 93 93 93 93	94 91
12.5	89 88 90 94 94 95 95 93 92 93 95 98 98 98 98 98	98 96
16	91 92 95 95 96 96 96 96 96 96 99 100 100 100 100 100	97 100
20	90 89 93 94 93 97 95 95 95 94 96 97 94 96 97 94	98 96
25	88 89 94 92 91 96 93 92 89 95 98 94 94 94 94 94	95 98
31.5	87 85 86 91 88 89 93 91 89 86 92 94 97 97 97 97	96 96
40	83 85 87 87 88 88 90 86 84 87 92 92 97 97 97 97	94 96
50	89 89 93 85 81 84 87 87 86 86 88 89 91 94 94 94	95 95
63	85 85 89 79 78 80 84 84 83 86 85 81 84 84 88 88	91 92
80	82 84 74 74 77 81 82 82 84 82 77 77 80 84 87 87	86 87
100	80 81 82 71 70 77 79 79 79 80 79 75 76 79 82 81	82 81
125	78 80 81 69 66 75 77 77 77 79 77 73 73 76 79 80	79 78
160	78 79 66 63 73 73 74 75 77 76 71 71 74 76 77 76	76 76
200	77 78 66 62 72 70 72 72 72 76 75 70 71 73 75 75	74 75
250	76 76 77 64 61 70 68 69 72 73 72 69 70 75 75 76	72 73
315	73 72 76 63 57 67 65 66 69 71 69 67 69 73 74 77	72 74
400	69 69 70 59 52 64 63 64 67 68 69 64 68 75 75 78	76 76
500	66 67 69 59 48 61 63 64 66 68 71 65 69 75 77 80	79 79
630	64 65 65 55 46 61 63 62 64 69 72 62 68 75 77 80	77 75
800	64 65 64 53 45 60 62 62 64 69 72 60 65 72 75 76	73 72
1000	64 63 63 53 44 58 60 61 62 63 67 70 59 63 70 72	73 72
1250	62 61 63 51 44 58 58 61 62 66 68 59 63 70 71 74	72 71
1600	61 61 63 50 42 56 57 60 61 65 66 58 62 67 69 71	70 69
2000	60 60 62 49 42 54 56 59 60 63 64 56 60 65 67 69	68 68
2500	60 59 61 48 40 53 55 57 59 62 62 55 57 63 65 67	66 65
3150	58 57 60 48 40 51 53 53 56 59 59 52 53 60 62 64	63 63
4000	60 59 62 48 44 48 52 53 56 56 56 49 56 57 57 57	57 57
5000	56 55 58 44 44 44 52 53 53 53 53 51 51 51 51 51	53 53
6300	52 52 54 44 44 44 52 53 53 53 53 49 49 49 49 49	49 49
8000	52 52 54 44 44 44 52 53 53 53 53 49 49 49 49 49	49 49
10000	52 52 54 44 44 44 52 53 53 53 53 49 49 49 49 49	49 49
OVERALL	98 96 101 93 98 98 101 102 102 102 104 103 102 101 104 106 106	106 106

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																			
IDENTIFICATION:																			
5.4 DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT:																			
(OPERATION:)																			
(IDLE POWER (66.42% RPM))																			
(SINGLE ENGINE GROUND)																			
(BAR PRESS = 0.760 M HG)																			
(RUNUP IN THE A/F32T-9)																			
(REL HUMID = 70 %)																			
(MSS MCCONNELL AFB)																			
(PAGE 4)																			
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC 78 76 77 75 69 68 68 65 74 69 68 67 73 73 72 71 74 73																			
OASLA 66 65 65 66 49 48 55 55 62 55 53 53 52 55 56 58 55 53																			
T 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																			
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL 58 57 57 58 40 39 45 48 49 46 44 44 46 47 44																			
ANNNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT 82 79 79 79 63 61 71 71 77 68 67 67 66 66 69 70 69 66																			
C 2 1 1 1 1 1 3 3 2 1 2 1 1 0 0 0 1 2																			
NO DATA COLLECTED																			

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																
IDENTIFICATION:																
5.4 DISTANCE = 100 METERS																
NOISE SOURCE/SUBJECT:																
OPERATION:																
METEOROLOGY:																
TEMP = 15 C																
BAR PRESS = 0.760 M HG																
REL HUMID = 70 %																
PAGE 4																
ANGLE (DEGREES)																
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
HAZARD/PROTECTION																
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																
NO PROTECTION																
OASLC 82 80 80 78 69 69 72 74 73 74 72 72 70 71 72 73 76 75																
OASLA 69 68 67 67 48 50 55 59 58 56 53 54 50 55 56 62 62 61																
T 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																
COMMUNICATION																
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
PSIL 52 61 60 59 40 41 47 52 51 49 44 47 46 47 54 54 52																
ANNOYANCE																
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																
TONE CORRECTION (C IN DB)																
PNLT 87 85 83 80 62 65 74 77 76 74 70 72 63 68 69 72 74 72																
C 2 2 2 0 1 2 3 3 3 2 2 3 1 1 1 0 0 0																
** NO DATA COLLECTED.																

** NO DATA COLLECTED.

TABLE	MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:
5.4	DISTANCE = 100 METERS																	OMEGA 1.5
NOISE SOURCE/SUBJECT:	(OPERATION:) METEOROLOGY: TEST DP-OT9-300																	RUN 03
TF30-P7 ENGINE	(MILITARY POWER(97.9 XRPB)) TEMP = 15 C																	05 MAR 87
IN THE A/F32T-9 NSS AT	(SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG																	
MCCONNELL AFB, KANSAS	(RUNUP IN THE A/F32T-9) REL HUMID = 70 %																	
FAR FIELD NOISE	(NSS MCCONNELL AFB)																	PAGE 4
	ANGLE (DEGREES)																	**
	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
HAZARD/PROTECTION																		
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																		
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																		
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																		
NO PROTECTION																		
OASLC	86	84	84	81	84	82	85	85	85	86	85	83	81	83	86	87	87	87
OASLA	68	67	67	67	58	63	64	64	65	67	65	60	62	66	67	70	69	69
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
COMMUNICATION																		
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																		
PSIL	59	59	59	59	53	53	53	56	57	57	57	51	53	58	59	62	61	61
ANNOYANCE																		
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																		
TONE CORRECTION (C IN DB)																		
PNLT	85	82	82	80	72	76	81	81	80	81	79	74	75	79	80	83	83	84
C	2	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	1
** NO DATA COLLECTED.																		

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 1, APRIL 82)																
5.4 DISTANCE = 100 METERS																
IDENTIFICATION:																
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY: OMEGA 1.5																
TF30-P7 ENGINE (AFTERBURNER POWER(95.1x)) TEMP = 15 C TEST DP-079-300																
IN THE A/F32T-9 NSS AT (SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG RUN 04																
MCCONNELL AFB, KANSAS (RUNUP IN THE A/F32T-9) REL HUMID = 70 X 05 MAR 87																
FAR FIELD NOISE (NSS MCCONNELL AFB)) PAGE 4																
HAZARD/PROTECTION																
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																
NO PROTECTION																
OASLC	95	94	98	90	91	92	96	95	95	98	97	95	94	97	100	101
OASLA	76	76	78	66	62	71	72	73	74	77	79	71	75	81	82	85
T	1440	1440	1358	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	807	679	404
COMMUNICATION																
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
PSIL	67	67	68		61	62	64	65	69	70		65	72	74		
ANNNOYANCE																
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																
TONE CORRECTION (C IN DB)																
PNLT	92	92	95	82	77	86	87	88	89	92	92	86	88	93	95	97
C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
** NO DATA COLLECTED																
															98	98
															1	1

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																
5.5	OCTAVE BAND	OMEGA 1.5																
DISTANCE = 100 METERS		TEST DP-019-300																
NOISE SOURCE/SUBJECT:		RUN 05																
TF30-P7 ENGINE		METEOROLOGY:																
IN THE A/F32T-9 NSS AT		TEMP = 15 C																
MCCONNELL AFB, KANSAS		BAR PRESS = 0.760 M HG																
FAR FIELD NOISE		REL HUMID = 70 %																
		PAGE 5																
FREQ		ANGLE (DEGREES)																
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160
31.5	64	63	64	65	61	65	68	65	65	59	63	66	73	71	69	67	68	71
63	70	65	70	67	55	58	61	60	58	61	64	70	67	66	63	63	68	67
125	68	65	70	68	50	53	53	57	55	56	59	63	59	59	58	58	67	63
250	64	65	63	65	45	49	50	50	50	53	53	52	57	52	55	58	60	58
500	56	57	58	59	41	46	44	46	47	48	47	52	50	53	58	60	54	57
1000	54	58	59	60	33	40	41	42	43	44	44	52	50	46	47	55	58	51
2000	51	56	55	57	28	35	34	37	37	37	37	45	45	37	44	51	53	47
4000	42	46	45	48	27	29	28	30	31	31	31	36	41	39	39	44	46	42
8000	32	34	34	37	30	29	29	29	29	28	28	26	36	32	32	41	37	34
OVERALL	73	71	74	73	62	66	69	67	63	67	69	75	73	71	70	73	73	73

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
5.5		OCTAVE BAND																	
		DISTANCE = 100 METERS																	
NOISE SOURCE/SUBJECT:		(OPERATION:				METEOROLOGY:													
IF30-P7 ENGINE		(IDLE POWER (66.42% RPM)				TEMP = 15 C													
IN THE A/F32T-9 MSS AT		(SINGLE ENGINE GROUND				BAR PRESS = 0.760 M HG													
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9				REL HUMID = 70 %													
FAR FIELD NOISE		(MSS MCCONNELL AFB																	
FREQ		ANGLE (DEGREES)																	
((HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
31.5		76	75	75	72	71	69	67	64	68	68	67	67	73	73	72	69	74	73
63		74	71	72	69	65	62	62	60	65	64	65	63	70	69	67	68	70	69
125		71	69	70	69	57	56	63	57	71	60	59	58	64	63	62	62	63	62
250		66	65	68	66	51	52	60	54	68	55	54	54	54	56	59	61	57	54
500		65	63	64	64	46	47	52	54	58	54	53	52	48	53	54	57	53	50
1000		60	59	58	60	39	39	43	48	49	49	45	46	43	47	50	50	46	47
2000		58	57	56	58	37	37	45	49	50	45	44	43	40	43	45	45	41	43
4000		49	49	49	51	38	33	40	41	40	38	34	36			36	38	37	
8000		41	42	40	40	36			36								34	35	
OVERALL		79	78	78	76	72	70	70	67	74	71	70	69	75	75	74	73	76	75

NO DATA COLLECTED.

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
OCTAVE BAND																				
5.5																			OMEGA 1.5	
DISTANCE = 100 METERS																			TEST DP-019-300	
NOISE SOURCE/SUBJECT:		OPERATION:																	METEOROLOGY:	
TF30-P7 ENGINE		INTMD POWER (80.0X RPM)																	TEMP = 15 C	
IN THE A/F321-9 NSS AT		SINGLE ENGINE GROUND																	BAR PRESS = 0.760 M HG	
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F321-9																	REL HUMID = 70 X	
FAR FIELD NOISE		NSS MCCONNELL AFB																	PAGE 5	
FREQ		ANGLE (DEGREES)																	**	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
31.5		85	82	82	78	72	71	73	76	75	75	72	73	72	71	74	73	76	76	76
63		71	69	72	68	61	63	67	67	67	68	68	66	65	67	67	69	73	73	71
125		68	70	69	72	53	57	60	60	60	61	61	59	58	61	62	63	66	64	64
250		67	68	67	68	52	52	53	56	55	55	53	52	50	54	56	55	57	59	59
500		64	65	65	65	46	47	49	55	54	52	47	52	49	54	54	60	59	59	59
1000		60	61	61	62	39	39	42	48	48	47	43	46	43	49	50	58	59	56	56
2000		64	62	60	59	38	39	50	53	53	51	46	48	39	45	46	53	54	51	51
4000		60	57	55	51	36	39	47	50	48	47	42	43		38	38	43	43	41	41
8000		51	49	47	43	33	40	40	40	37	36								33	33
OVERALL		85	83	83	80	72	72	74	77	76	76	74	74	73	73	75	75	78	78	78

** NO DATA COLLECTED.

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
5.5		OCTAVE BAND																	
		DISTANCE = 100 METERS																	
NOISE SOURCE/SUBJECT:		(OPERATION:)																	
TF30-P7 ENGINE		(MILITARY POWER(97.9 XRPM))																	
IN THE A/F32T-9 NSS AT		(SINGLE ENGINE GROUND)																	
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9)																	
FAR FIELD NOISE		(NSS MCCONNELL AFB)																	
FREQ		ANGLE (DEGREES)																	
(HZ)		**																	
		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
31.5		86	84	84	83	86	83	86	85	85	87	86	84	82	84	88	87	88	88
63		83	80	80	75	78	77	82	81	81	82	81	78	77	78	80	83	83	83
125		76	74	73	72	70	74	75	75	75	75	73	70	69	71	72	74	76	74
250		70	70	68	68	61	69	67	67	69	69	63	61	64	65	65	66	67	68
500		63	63	64	66	51	55	58	58	61	63	61	56	60	64	65	70	68	69
1000		60	60	60	61	46	50	54	53	57	59	59	52	56	61	61	64	64	63
2000		58	57	57	58	43	47	51	51	55	56	56	50	52	58	58	61	60	58
4000		56	54	53	51			49	50	50	51	50	45	44	51	51	54	53	52
8000		57																	
OVERALL		88	86	86	84	86	84	87	87	87	88	87	85	84	86	89	89	89	89

** NO DATA COLLECTED.

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APPENDIX D
Far-Field Noise on the
F100 Engine

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TABLE 6.1

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS
F100 ENGINE IN THE A/F32T-9 NOISE SUPPRESSOR SYSTEM
McCONNELL AFB, KANSAS

Date of Test: 26 February 1986

Time of Test: 1330 Hrs

Engine Operation

Idle	66.7 %RPM
80 %	80.0 %RPM
Military Power	90.7 %RPM
Afterburner Power	90.6 %RPM

Meteorology

Temperature	24 Deg C
Bar Pressure	0.721 M Hg
Rel Humidity	30 %
Winds - Speed	5 - 9 Knots (Gusts to 18)
- Direction	350 Deg (True)

MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
DISTANCE : 100 METERS																		
NOISE SOURCE/SUBJECT:																		
(F100 ENGINE IN THE																		
(A/F32T-9 NSS AT																		
(MCCONNELL AFB, KANSAS																		
(FAR FIELD NOISE																		
(OPERATION:																		
(BACKGROUND NOISE																		
(SINGLE ENGINE GROUND																		
(RUNUP IN THE A/F32T-9																		
(NSS MCCONNELL AFB																		
METEOROLOGY:																		
(TEMP = 24 C																		
(BAR PRESS = 0.721 M HG																		
(REL HUMID = 30 X																		
(PAGE 2																		
FREQ																		
(HZ)																		
ANGLE (DEGREES)																		
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																		
25	65	63	69	66	57	63	67	65	71	66	69	64	69	63	63		72	73
31.5	67	65	71	68	59	62	65	65	69	65	69	63	66	63	63		71	71
40	68	67	74	70	56	58	65	66	68	65	68	63	63	64	64		69	70
50	78	71	72	67	61	63	64	65	66	66	62	60	62	61	61		65	67
63	66	64	71	67	59	58	62	64	65	62	63	60	62	66	66		70	72
80	64	63	69	66	69	62	59	65	66	68	58	61	58	59	58		62	64
100	67	66	70	67	64	64	60	63	66	64	58	60	58	56	54		61	58
125	72	71	74	73	59	60	59	64	66	64	55	56	55	53	52		62	57
160	72	71	72	74	56	56	57	61	67	62	53	53	52	51	49		60	55
200	69	70	70	71	56	57	57	60	65	62	53	53	50	50	50		59	55
250	64	66	66	65	54	53	58	59	64	62	53	53	50	48	48		60	54
315	61	59	62	61	53	52	56	58	65	62	52	53	52	47	47		57	50
400	63	59	62	63	55	52	56	59	64	62	54	54	47	47	50		55	50
500	59	57	60	59	51	52	57	57	64	62	53	53	52	45	45		56	46
630	62	60	60	61	51	54	59	60	65	60	54	52	52	44	44		54	45
800	62	61	61	61	53	57	59	60	61	59	52	51	50	45	44		52	45
1000	59	61	63	60	50	55	57	58	59	57	52	51	49	42	42		53	44
1250	59	59	66	60	48	58	58	60	54	57	50	50	48	41	41		53	43
1600	59	59	65	60	47	54	56	59	49	54	48	46	38	40	40		51	41
2000	57	58	64	60	45	52	54	56	47	49	45	41	37	36	36		47	40
2500	56	57	63	58	42	54	54	55	47	43	41	41	38	35	35		44	42
3150	54	56	59	58	41	48	52	53	49	41	38	39	33	34	34		42	41
4000	52	53	56	56	39	44	48	48	37	36	35	36	31	33	32		37	37
5000	50	52	55	56	31	38	42	41	33	35	34	35	31	32	31		36	36
6300	47	49	52	54	29	32	35	35	32	35	32	33	32	28	28		36	36
8000	53	55	58	61	32	27	32	33	33	36	33	34	33	34	29		37	37
10000	47	50	52	55	24	25	31	34	34	36	34	35	34	34	29		38	38
OVERALL	81	79	82	80	73	72	74	76	77	78	72	75	71	73	71		78	79

NO BACKGROUND CORRECTION APPLIED.

NO DATA COLLECTED.

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																		IDENTIFICATION:	
1/3 OCTAVE BAND																			
DISTANCE = 100 METERS																		OMEGA 1.5	
6.2																		TEST DP-019-400	
NOISE SOURCE/SUBJECT:																		RUN 01	
(OPERATION:																			
(FLIGHT IDLE(66.7% RPM)																		) TEMP = 24 C	
(SINGLE ENGINE GROUND																		) BAR PRESS = 0.721 M HG	
(RUNUP IN THE A/F32T-9																		) REL HUMID = 30 %	
(NSS MCCONNELL AFB																		) PAGE 2	
FREQ																			
(HZ)																		°	
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																			
25 66 64 65 67 64 64 66 61 68 63 66 66 65 60 70 64 67 71																			
31.5 68 67 66 68 65 63 64 61 67 63 64 65 64 62 70 65 66 68																			
40 69 68 70 69 67 65 62 63 66 64 64 66 66 66 69 69 65 69																			
50 65 62 63 66 73 66 59 68 65 65 62 63 63 62 66 67 65 66																			
63 65 62 66 72 69 65 59 69 64 71 59 64 62 59 65 72 64 64																			
80 60 60 60 68 65 65 58 69 64 63 66 62 61 56 63 74 63 63																			
100 59 60 59 69 64 62 60 63 66 62 58 63 59 54 58 69 62 61																			
125 63 60 65 71 60 60 57 57 64 67 56 59 57 53 56 66 60 60																			
160 60 60 61 67 58 57 54 53 57 59 52 57 55 51 52 65 56 55																			
200 61 60 62 67 54 57 57 56 60 60 54 54 55 49 50 64 55 53																			
250 57 57 58 67 51 59 55 55 56 58 58 54 52 55 47 45 56 52																			
315 54 53 54 67 48 60 53 55 56 58 58 50 50 53 44 42 69 56																			
400 57 57 58 65 46 58 51 52 54 57 55 51 51 47 47 69 54 49																			
500 53 53 56 65 42 56 48 52 53 56 57 51 49 45 46 66 52 47																			
630 51 51 53 65 39 55 46 55 55 55 53 57 49 47 42 44 62 47																			
800 52 52 54 62 39 52 44 49 52 52 54 48 45 42 43 55 46 43																			
1000 54 52 54 61 37 51 44 47 49 51 53 46 44 42 42 51 45 42																			
1250 52 52 53 59 36 47 43 47 48 49 50 43 42 40 41 46 45 41																			
1600 52 51 52 57 33 44 41 46 47 48 45 40 41 37 38 42 43 39																			
2000 49 48 49 54 29 39 38 45 44 45 40 35 39 34 35 37 39 36																			
2500 57 54 53 52 30 35 46 48 47 47 40 38 38 36 38 39 37																			
3150 53 51 51 48 32 45 47 47 47 45 40 38 38 35 40 38 37																			
4000 53 51 49 45 34 42 44 44 44 41 33 31 35 29 34 35 36 34																			
5000 50 48 47 42 42 41 42 40 38 31 29 32 26 33 35 36 35																			
6300 45 41 40 37 32 38 35 36 32 30 29 23 23 32 36 36 36																			
8000 44 40 37 32 34 34 33 37 30 34 24 24 24 33 37 37 37																			
10000 34 33 30 30 31 29 34 71 75 75 75 73 73 72 70 76 80 74 76																			
OVERALL																			

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
DISTANCE = 100 METERS																		
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:)																		
F100 ENGINE IN THE (INTMD POWER (80.8X RPM)) TEMP = 24 C																		
A/F32T-9 NSS AT (SINGLE ENGINE GROUND) BAR PRESS = 0.721 M HG																		
MCCONNELL AFB, KANSAS (RUNUP IN THE A/F32T-9) REL HUMID = 30 X																		
FAR FIELD NOISE (NSS MCCONNELL AFB)) PAGE 2																		
FREQ																		
(HZ)																		
ANGLE (DEGREES)																		

25	83	80	81	77	74	73	74	77	76	78	78	76	74	75	77	73	76	76
31.5	84	81	78	75	69	72	75	75	76	76	77	75	70	74	75	77	75	75
40	80	82	79	75	66	72	74	76	75	75	75	74	70	71	73	75	73	74
50	75	75	74	71	64	68	71	71	71	71	72	72	67	71	70	73	73	72
63	76	73	71	69	67	69	69	68	71	70	70	69	65	68	69	71	70	70
80	74	73	68	65	63	67	70	70	69	71	69	67	62	63	63	68	68	68
100	76	75	63	63	68	67	67	66	65	65	64	65	60	64	59	62	67	64
125	78	77	67	65	57	64	62	70	62	63	63	66	58	60	57	61	62	62
160	78	79	63	64	55	64	56	58	58	57	64	67	55	62	55	58	60	59
200	79	76	62	64	56	66	54	58	59	58	63	69	54	57	53	55	61	62
250	78	74	60	61	52	67	53	55	57	56	60	68	52	55	54	52	61	60
315	74	69	57	59	49	63	50	53	56	54	58	65	52	54	55	54	62	60
400	72	68	57	60	47	60	50	52	54	51	54	61	53	56	56	57	62	60
500	70	66	54	55	47	58	48	50	53	50	50	60	53	57	53	55	57	59
630	67	64	54	53	45	56	47	48	54	50	48	59	53	56	52	55	55	56
800	62	62	55	55	42	53	46	48	54	50	46	57	51	55	50	53	53	53
1000	57	58	55	57	39	48	45	47	53	50	44	53	48	53	48	51	51	49
1250	54	54	55	55	36	44	45	46	51	50	44	46	46	49	48	49	50	46
1600	52	52	53	54	34	42	47	45	49	50	43	41	43	47	45	47	47	44
2000	52	50	51	51	32	40	45	45	48	47	42	41	41	44	44	46	45	42
2500	51	50	50	50	30	39	44	46	46	44	41	40	39	41	42	44	43	39
3150	53	51	51	48	31	38	44	46	44	44	41	39	37	40	40	42	42	35
4000	51	49	49	45	31	37	43	44	42	41	38	36	34	37	38	39		
5000	52	50	50	42	31	36	43	45	41	41	38	36	33	36	37			
6300	54	52	51	39	32	36	44	46	42	42	39	37	32	34	37			31
8000	46	41	39	35	32	34	35	43	38	38	38	37	33	34	37			
10000	40		36	34	33	34	35	43	38	38	38	38	33	34	38	38		
OVERALL	90	88	85	82	77	80	81	82	82	82	83	82	77	80	81	81	82	81

NO BACKGROUND CORRECTION APPLIED.
** NO DATA COLLECTED.

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
6.2		1/3 OCTAVE BAND																	OMEGA 1.5	
		DISTANCE = 100 METERS																	TEST DP-019-400	
NOISE SOURCE/SUBJECT:		OPERATION:																	METEOROLOGY:	
F100 ENGINE IN THE		MILITARY POWER(90.6X RPM)																	TEMP = 24 C	
A/F32T-9 NSS AT		SINGLE ENGINE GROUND																	BAR PRESS = 0.721 H MG	
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																	REL HUMID = 30 X	
FAR FIELD NOISE		NSS MCCONNELL AFB																	PAGE 2	
FREQ		ANGLE (DEGREES)																	**	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	85	82	84	81	80	80	80	83	83	80	81	84	83	80	85	87	82	85	86	
31.5	84	81	82	79	78	78	79	83	83	82	79	84	80	77	81	85	87	88	87	
40	82	82	81	77	76	78	80	83	83	82	78	81	78	75	78	82	87	84	86	
50	80	78	79	73	71	75	79	79	80	80	74	79	75	75	78	80	84	83	83	
63	81	76	78	71	70	75	77	75	77	75	79	74	79	73	74	76	78	80	81	
80	78	76	75	70	67	74	74	74	77	77	73	76	70	71	74	78	76	77		
100	73	72	73	66	64	72	71	71	71	71	69	72	67	69	71	71	72	74	74	
125	70	71	71	69	59	70	71	68	70	67	70	64	64	64	67	68	69	71	72	
160	70	67	68	63	58	66	68	67	67	67	64	67	61	60	64	65	68	69	71	
200	68	65	66	62	60	64	65	69	66	66	62	63	60	58	60	63	63	65	68	
250	65	62	63	58	55	61	62	65	65	65	59	59	58	57	60	59	58	59	62	
315	61	59	60	57	50	58	60	62	64	64	57	57	56	58	61	58	61	60	59	
400	61	59	60	56	48	55	58	60	63	63	57	59	56	59	63	61	66	65	63	
500	59	57	58	54	45	51	55	58	62	62	56	61	55	60	64	62	67	64	63	
630	56	55	56	53	43	50	56	56	59	59	56	61	55	56	62	60	64	63	62	
800	56	56	55	53	41	50	53	55	59	59	56	61	53	54	60	59	61	62	63	
1000	55	55	55	54	40	49	51	55	58	58	53	60	52	53	58	57	59	58	59	
1250	56	55	54	54	39	49	51	55	58	59	59	65	52	52	56	56	58	58	57	
1600	56	56	55	52	37	48	51	54	55	55	56	61	52	51	55	54	57	57	57	
2000	58	55	57	55	50	59	61	63	57	54	59	59	52	50	54	53	56	55	55	
2500	56	55	56	51	45	54	56	59	57	57	53	59	51	48	52	51	54	53	53	
3150	56	53	54	44	42	50	51	51	57	57	49	54	49	46	50	49	52	51	50	
4000	55	51	53	41		47	47	58	44	48	44	48	43	42	46	46	48	48	47	
5000	52	48	50			44	44	44	44	40	44	44	41	39	44	44	45	45	45	
6300	53	48	50			43	43	42	42	42	42	42	40		41	42	42	42	42	
8000	45	41	43			41	41	41	41	41	42	42	41		42	42	42	42	42	
10000	38	40	39			41	42	42	42	42	42	42	42		42	42	42	42	43	
OVERALL	90	88	89	85	84	86	88	88	89	88	85	89	86	84	88	91	92	92	92	

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:
1/3 OCTAVE BAND																	OMEGA 1.5
DISTANCE = 100 METERS																	TEST DP-OT9-400
NOISE SOURCE/SUBJECT:																	RUN 04
(F100 ENGINE IN THE)																	
(A/F32T-9 NSS AT)																	11 MAR 87
(MCCONNELL AFB, KANSAS)																	
(FAR FIELD NOISE)																	PAGE 2
OPERATION:) METEOROLOGY:																	
(AFTERBURNER POWER(90.6X))																	TEMP = 24 C
(SINGLE ENGINE GROUND)																	BAR PRESS = 0.721 M HG
(RUNUP IN THE A/F32T-9)																	REL HUMID = 30 X
(NSS MCCONNELL AFB)																	
FREQ	ANGLE (DEGREES)																**
(HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160 170 180
3.15	75	76	78	77	78	76	77	81	87	83	81	87	81	83	81	80	83 83
4	88	87	89	89	86	87	88	88	89	89	89	90	90	90	89	87	89 89
5	84	85	84	83	83	82	81	83	84	84	85	85	85	85	85	85	84 85
6.3	87	85	83	84	80	81	82	83	84	85	82	83	87	85	86	87	88 88
8	89	88	87	83	85	83	85	85	89	88	85	87	90	88	88	92	89 89
10	91	89	88	86	87	86	88	88	89	90	89	90	88	88	88	93	93 91
12.5	92	92	87	88	87	92	90	93	92	94	92	92	92	95	96	94	96 94
16	92	94	89	88	90	90	93	95	95	95	95	95	94	99	99	99	95 101
20	90	89	88	88	89	90	92	92	93	96	94	94	96	97	95	94	99 97
25	92	86	87	86	88	89	92	93	91	93	93	92	88	93	96	95	96 96
31.5	87	86	88	85	84	86	90	91	89	91	92	89	87	92	92	99	96 97
40	87	88	86	82	82	85	88	88	89	89	89	86	85	88	93	97	95 96
50	88	88	86	81	87	85	89	88	87	87	89	86	86	88	91	94	96 95
63	87	81	82	76	83	83	84	85	85	87	87	87	83	85	87	94	93 93
80	83	82	79	75	78	81	82	84	83	86	84	78	79	81	82	89	88 88
100	79	77	77	69	74	79	78	79	79	80	80	73	76	78	78	83	82 82
125	75	76	76	66	70	76	76	75	76	78	76	71	72	75	74	78	79 77
160	75	73	73	62	65	74	73	75	75	74	74	69	70	72	73	75	76 74
200	74	71	70	62	64	72	69	74	73	74	73	67	71	71	70	71	73 72
250	71	69	68	61	61	70	68	72	72	72	69	69	73	69	69	71	71 73
315	69	66	66	60	58	68	66	68	72	71	66	68	72	71	68	74	74 76
400	67	65	65	59	55	66	65	67	70	70	68	67	71	74	71	76	77 78
500	67	64	65	57	52	63	65	67	69	71	72	66	72	76	75	80	81 82
630	67	64	64	56	50	59	64	66	67	70	73	64	70	73	73	77	77 77
800	68	63	63	57	50	58	64	66	68	70	71	63	66	69	70	73	72 73
1000	68	66	63	58	49	57	64	66	68	70	69	63	65	68	69	72	72 74
1250	68	65	63	56	49	57	64	65	67	70	67	63	65	68	68	72	73 74
1600	66	65	61	55	47	55	61	64	65	67	65	61	63	66	67	70	70 71
2000	67	65	61	53	48	54	61	62	66	67	64	60	61	64	65	68	68 69
2500	66	63	60	52	48	52	60	61	64	65	62	59	59	62	62	66	65 67
3150	64	62	58	48	50	50	58	59	61	62	59	56	56	60	59	64	62 64
4000	62	60	55	45	54	54	55	55	55	57	55	51	51	56	55	59	58 59
5000	60	58	53	41	51	51	53	53	54	52	52	51	51	52	52	55	54 55
6300	57	55	49	39	49	49	49	52	51	52	51	52	51	51	51	52	52 52
8000	52	49	45	39	49	49	49	52	52	52	52	52	52	51	51	52	52 52
10000	44	44	44	39	48	47	47	53	53	53	53	47	53	53	52	53	53 52
OVERALL	101	100	98	97	97	99	100	102	101	103	102	102	101	104	104	106	106 106

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:								
1/3 OCTAVE BAND																				
6.3		DISTANCE = 100 METERS										OMEGA 1.5								
												TEST DP-019-400								
NOISE SOURCE/SUBJECT:		OPERATION:										METEOROLOGY:								
F100 ENGINE IN THE		BACKGROUND NOISE										TEMP = 15 C								
A/F32T-9 NSS AT		SINGLE ENGINE GROUND										BAR PRESS = 0.760 M HG								
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9										REL HUMID = 70 X								
FAR FIELD NOISE		NSS MCCONNELL AFB										PAGE 3								
FREQ		ANGLE (DEGREES)																		
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25		65	63	70	66	57	63	68	68	65	72	66	69	64	69	63	63		72	73
31.5		67	65	71	68	60	62	65	65	65	69	65	69	63	66	63	63		71	72
40		68	67	74	70	56	58	65	66	66	68	65	68	63	64	64	64		69	70
50		78	71	72	67	61	63	65	66	66	66	63	67	60	62	61	61		66	67
63		66	64	71	67	59	58	62	64	65	65	62	63	60	62	66	66		70	73
80		64	63	69	66	70	62	59	65	66	68	58	62	59	59	58	58		62	64
100		67	66	70	68	64	64	60	63	66	64	58	60	58	56	55	55		61	59
125		73	72	75	73	60	60	59	64	67	64	55	56	56	53	52	52		62	57
160		72	71	73	74	56	56	57	62	67	62	54	53	53	52	49	49		61	55
200		69	70	71	71	56	58	57	61	65	62	53	53	50	50	51	51		59	55
250		64	66	66	66	54	55	58	59	65	62	53	54	50	48	48	48		60	54
315		62	60	62	62	53	53	56	59	65	62	53	54	52	47	48	48		57	51
400		63	60	62	64	55	53	57	59	65	62	54	54	54	48	50	50		56	50
500		59	57	60	60	52	52	57	57	64	62	53	53	52	46	45	45		56	46
630		62	60	61	61	51	54	59	60	65	61	54	52	52	44	44	44		54	45
800		63	61	62	62	54	57	59	60	62	59	52	51	51	45	44	44		53	45
1000		60	61	63	60	51	55	57	58	60	57	53	51	50	43	43	43		53	44
1250		59	59	66	61	49	58	59	60	54	57	51	50	48	42	42	42		53	43
1600		60	59	65	61	47	55	56	59	49	54	49	48	47	39	41	41		51	42
2000		58	59	65	60	45	53	55	55	57	50	46	45	42	38	37	37		48	40
2500		57	57	63	59	43	55	55	55	48	44	42	42	38	35	36	36		45	43
3150		55	57	60	59	42	49	54	54	50	42	39	40	34	35	35	35		43	42
4000		54	55	58	58	40	45	50	50	39	37	37	38	33	34	33	33		39	39
5000		52	54	57	58	34	41	44	43	35	37	36	37	33	34	33	33		38	38
6300		49	51	55	57	32	34	38	37	35	38	35	36	34	35	31	31		39	39
8000		57	59	62	65	37	31	36	37	37	40	37	38	37	38	33	33		41	41
10000		53	55	58	61	30	30	37	39	39	42	39	40	39	40	35	35		43	44
OVERALL		82	79	83	81	73	72	74	76	78	78	73	75	71	73	71	71		78	79

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
1/3 OCTAVE BAND																			
6.3																	OMEGA 1.5		
DISTANCE = 100 METERS																	TEST DP-019-400		
NOISE SOURCE/SUBJECT:																	RUN 01		
(F100 ENGINE IN THE																			
(A/F32T-9 NSS AT																	15 C		
(MCCONNELL AFB, KANSAS																	BAR PRESS = 0.760 M HG		
(FAR FIELD NOISE																	REL HUMID = 70 %		
(NSS MCCONNELL AFB																	PAGE 3		
FREQ																			
(HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	67	64	65	67	64	64	66	61	68	63	66	66	65	60	70	64		67	72
31.5	68	67	66	69	66	64	64	61	67	63	64	65	65	63	70	66		66	69
40	69	68	70	69	67	65	62	63	66	64	64	66	66	66	70	69		66	69
50	65	62	63	66	73	66	60	68	65	65	63	63	63	62	66	68		65	67
63	65	62	66	72	69	65	59	69	64	71	59	64	59	65	72	64		64	64
80	61	60	60	68	65	65	59	69	64	63	66	62	61	56	63	74		64	63
100	59	61	59	69	64	62	60	63	66	63	58	63	59	54	58	70		62	61
125	63	60	66	71	60	60	58	57	64	67	56	59	57	53	56	66		60	60
160	60	60	61	68	58	58	55	53	58	59	52	57	55	51	52	65		56	56
200	61	61	62	68	54	57	58	56	60	60	54	55	55	49	50	64		55	53
250	57	58	58	67	51	59	56	55	57	59	54	52	55	47	45	65		56	52
315	54	54	55	67	48	61	53	55	56	58	56	50	53	44	43	69		56	51
400	58	58	58	66	46	59	51	53	54	57	55	51	51	47	47	69		54	50
500	53	53	56	66	43	57	48	52	53	56	57	51	49	45	46	66		52	48
630	52	51	53	65	39	55	46	55	55	54	57	50	47	42	45	62		47	46
800	52	52	54	62	39	53	45	50	52	53	55	48	46	42	44	56		47	44
1000	54	52	54	62	37	51	44	48	49	51	53	46	44	42	42	51		46	43
1250	53	53	54	59	37	48	43	47	48	50	51	44	43	40	41	47		45	42
1600	52	51	52	57	34	44	41	47	47	48	46	40	41	38	39	42		43	40
2000	49	49	50	54	29	39	39	45	44	45	40	35	40	34	35	38		40	36
2500	58	55	54	53	31	36	46	49	48	48	41	39	39	37	38	39		40	38
3150	55	53	53	50		34	46	48	48	46	41	39	39	36	41	39		39	38
4000	55	52	51	47	36		44	46	45	43	34	32	37	30	36	37		37	36
5000	52	50	49	44			43	44	42	40	34	31	34	28	35	37		38	37
6300	48	44	43	39			40	38	39	35			32	26	34	39		39	39
8000	48	44	41	36			38	37	41	34				28	37	41		41	41
10000	40	39	36	36			36	35	40					29	39	44		43	44
OVERALL	76	74	76	80	77	74	72	75	75	76	73	73	72	70	76	80		74	76

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)															IDENTIFICATION:									
6.3		1/3 OCTAVE BAND															OMEGA 1.5									
		DISTANCE = 100 METERS															TEST DP-019-400									
		NOISE SOURCE/SUBJECT:															RUN 02									
		(F100 ENGINE IN THE															METEOROLOGY:									
		(A/F32T-9 NSS AT															TEMP = 15 C									
		(MCCONNELL AFB, KANSAS															BAR PRESS = 0.760 M HG									
		(FAR FIELD NOISE															REL HUMID = 70 %									
		((NSS MCCONNELL AFB															PAGE 3									
FREQ		ANGLE (DEGREES)															**									
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180						
25	83	80	81	77	74	73	74	74	77	76	78	79	77	74	75	77	73			77	77					
31.5	84	81	78	75	69	72	75	75	75	77	77	78	75	70	74	75	77			75	75					
40	80	82	79	75	66	72	74	74	76	76	75	75	75	70	72	74	75			73	74					
50	75	75	74	71	64	69	71	71	72	71	73	72	71	68	71	71	73			73	72					
63	76	73	71	69	67	69	69	68	71	71	71	71	70	65	68	69	72			70	70					
80	75	73	68	65	63	67	70	70	70	70	71	69	67	62	63	63	68			68	68					
100	76	75	64	63	68	67	67	67	67	66	65	65	65	60	64	59	62			68	64					
125	79	77	67	65	58	64	63	70	62	63	64	66	66	58	60	58	61			63	63					
160	78	79	63	64	55	64	57	58	59	58	64	68	68	55	63	55	58			61	60					
200	79	76	62	64	56	66	54	58	59	58	64	70	54	58	53	56	61			62						
250	78	74	60	62	52	67	53	55	57	56	60	68	68	53	55	54	52			61	60					
315	74	69	57	60	49	63	51	53	56	54	58	65	65	53	54	55	54			62	60					
400	72	68	57	60	47	60	50	52	54	52	54	54	54	54	56	57	57			62	60					
500	71	66	55	56	47	58	49	51	54	50	51	60	51	53	58	53	55			58	59					
630	67	65	54	53	45	56	47	49	54	50	49	60	60	53	57	52	55			55	56					
800	63	62	55	55	42	53	46	48	54	51	46	57	51	55	50	53	53			54	53					
1000	57	58	55	57	39	49	45	47	53	50	45	53	49	53	49	51	51			51	50					
1250	54	55	55	56	36	45	45	47	52	50	45	47	46	49	48	50	50			50	47					
1600	53	53	53	53	34	42	47	46	50	50	44	42	44	47	46	47	48			48	44					
2000	53	51	52	52	33	41	46	46	48	48	43	41	42	45	44	46	45			45	42					
2500	52	51	51	51	31	40	44	47	46	45	41	40	39	42	43	45	44			44	40					
3150	54	52	52	49	32	39	45	47	45	45	42	40	38	41	41	43	43			43	36					
4000	53	51	51	47	32	38	44	46	43	43	40	38	36	39	40	41	41			41						
5000	54	52	52	44	33	38	45	47	43	43	40	38	35	38	39	39	39									
6300	57	55	54	42	34	39	47	49	45	44	42	40	35	36	40						33					
8000	50	45	43	39	36	38	39	47	42	42	42	41	37	38	41											
10000	46		41	40	39	40	40	49	44	44	44	44	43	39	40	44	44			44						
OVERALL	90	89	85	82	78	80	81	82	82	83	83	82	78	80	81	82	82			82	82					

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:								
6.3		1/3 OCTAVE BAND										OMEGA 1.5								
		DISTANCE = 100 METERS										TEST DP-019-400								
NOISE SOURCE/SUBJECT:		(OPERATION:										RUN 03								
F100 ENGINE IN THE		(MILITARY POWER(90.6X RPM)										15 C								
A/F32T-9 NSS AT		(SINGLE ENGINE GROUND										BAR PRESS = 0.760 M HG								
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9										REL HUMID = 70 X								
FAR FIELD NOISE		(NSS MCCONNELL AFB										PAGE 3								
FREQ		ANGLE (DEGREES)										**								
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	85	82	84	81	80	80	80	83	83	80	81	84	83	80	85	87	82	85	86	
31.5	84	81	82	79	78	79	79	83	83	82	79	84	80	77	82	86	87	88	88	
40	82	82	81	77	77	78	78	80	83	82	78	81	78	76	78	82	87	84	86	
50	80	78	80	73	71	75	75	79	81	80	74	80	75	75	78	80	85	83	83	
63	81	76	78	71	71	75	77	77	76	79	74	79	73	74	76	78	80	80	81	
80	78	77	76	70	67	74	75	77	77	77	74	76	71	71	72	74	78	77	78	
100	74	73	73	67	65	73	71	71	71	72	69	72	67	69	72	72	72	74	74	
125	70	71	71	69	59	70	72	72	68	70	67	70	64	64	67	68	70	71	72	
160	70	68	69	63	58	66	68	68	68	67	65	67	61	60	65	66	68	69	71	
200	69	66	66	62	60	64	66	66	69	66	62	63	60	58	61	63	63	65	68	
250	65	62	63	58	55	61	62	65	65	65	59	59	58	58	60	59	59	59	62	
315	62	59	60	57	50	58	60	62	64	64	58	57	56	58	61	58	62	61	59	
400	61	59	60	56	48	55	58	60	63	63	57	60	57	59	64	61	67	65	63	
500	59	57	58	54	45	51	55	55	59	62	57	61	56	60	64	62	67	64	63	
630	56	56	56	52	43	50	56	57	57	59	57	62	55	57	62	61	64	63	62	
800	56	56	55	53	42	50	53	53	55	59	56	61	53	54	60	59	61	62	63	
1000	56	55	55	54	40	50	51	55	58	55	55	60	52	53	58	57	59	59	60	
1250	56	55	55	54	40	49	52	52	56	59	59	65	53	53	57	56	58	58	58	
1600	57	56	55	52	38	49	52	54	56	56	56	61	52	52	56	55	58	57	57	
2000	58	56	58	55	50	60	61	64	58	55	55	59	53	51	54	54	56	55	55	
2500	59	56	57	52	45	54	57	60	58	54	60	60	52	49	53	52	55	54	54	
3150	57	54	55	45		43	51	51	52	58	50	55	50	47	51	50	53	52	51	
4000	57	53	54	42			49	49	49	59	46	50	45	44	48	48	50	49	49	
5000	54	50	52				46	46	46	46	42	46	43	41	46	46	47	47	47	
6300	56	51	53				45	45	45	44	44	44	43	44	44	44	45	45	45	
8000	49	45	47				45	45	45	45	46	46	45	46	46	46	46	46	46	
10000	44	46	46	44			47	47	47	47	48	48	47	48	48	48	48	48	48	
OVERALL	90	88	89	85	84	86	86	89	90	89	86	90	87	85	89	91	92	92	93	

NO DATA COLLECTED.

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																		IDENTIFICATION:		
6.3		1/3 OCTAVE BAND)		
		DISTANCE = 100 METERS																		) OMEGA 1.5	
																				) TEST DP-019-400	
NOISE SOURCE/SUBJECT:		) OPERATION:																		) METEOROLOGY:	
F100 ENGINE IN THE		) AFTERBURNER POWER(90.6% )																		) TEMP = 15 C	
A/F32T-9 NSS AT		) SINGLE ENGINE GROUND																		) BAR PRESS = 0.760 M HG	
MCCONNELL AFB-KANSAS		) RUNUP IN THE A/F32T-9																		) REL HUMID = 70 %	
FAR FIELD NOISE		) NSS MCCONNELL AFB																		) PAGE 3	
FREQ		ANGLE (DEGREES)																		**		
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180		
3.15	76	76	78	78	77	78	76	78	81	87	83	82	87	82	84	82	80	83	83			
4	88	87	89	89	89	86	87	89	89	89	89	90	90	90	90	89	88	89	89			
5	84	86	84	83	84	83	81	83	83	84	85	85	86	85	85	86	85	84	83			
6.3	87	85	83	84	80	81	83	83	85	85	85	83	83	87	86	86	87	88	88			
8	89	88	87	83	85	83	86	86	86	89	88	85	88	91	88	88	92	90	90			
10	91	89	88	86	87	86	88	88	88	89	90	89	90	88	93	88	93	93	91			
12.5	92	93	88	88	87	92	90	93	92	94	93	92	93	93	95	97	94	96	94			
16	92	94	89	88	90	90	93	96	95	96	96	96	95	94	99	99	99	95	101			
20	91	89	88	88	88	89	90	92	92	94	96	94	95	96	97	96	94	99	97			
25	92	86	87	86	88	88	89	93	93	92	93	93	93	88	93	96	95	96	96			
31.5	88	86	88	85	84	86	91	91	91	89	91	92	89	88	92	93	99	97	97			
40	87	88	86	82	82	86	88	88	89	89	89	90	86	85	88	93	98	95	96			
50	88	88	86	81	87	85	89	88	88	87	87	89	86	86	88	91	94	96	96			
63	87	81	82	76	83	83	84	85	85	85	88	87	80	84	85	87	94	93	93			
80	84	82	80	75	79	81	82	84	83	86	86	84	78	80	82	82	89	89	88			
100	79	77	77	69	75	79	78	79	79	79	80	80	73	76	79	78	83	82	82			
125	76	76	76	66	70	76	77	75	77	75	79	77	72	73	75	75	78	79	77			
160	75	74	73	63	65	74	74	75	75	75	75	74	70	70	72	73	76	76	75			
200	74	72	70	62	64	72	70	74	73	74	73	68	71	71	71	71	71	73	73			
250	72	69	68	61	61	71	68	72	72	72	72	69	69	73	69	69	71	71	74			
315	69	66	66	60	59	68	67	68	72	71	66	68	72	71	69	74	74	74	76			
400	68	65	66	59	55	67	66	68	70	71	68	67	72	74	71	77	77	77	78			
500	68	65	65	57	53	63	65	68	69	71	72	66	72	76	75	80	81	82	82			
630	67	64	64	56	51	60	64	66	67	71	73	64	71	73	73	78	77	77	77			
800	68	66	63	57	50	59	64	66	68	70	71	64	66	69	70	74	72	73	73			
1000	69	66	63	58	50	57	65	66	68	70	69	63	65	69	69	72	72	74	74			
1250	68	65	63	57	50	57	64	66	68	70	68	63	65	68	69	72	73	74	74			
1600	67	65	62	55	48	56	62	64	65	68	66	61	64	66	67	71	70	72	72			
2000	67	65	62	54	49	55	62	63	67	68	65	61	62	65	65	69	69	70	70			
2500	67	64	61	53	53	53	61	62	65	66	63	60	60	63	63	67	66	67	66			
3150	65	63	59	50	52	52	59	60	62	63	60	58	57	61	60	65	63	65	65			
4000	64	61	57	46		56	57	57	57	59	57	52	53	57	57	61	60	61	61			
5000	62	60	55	43		53	55	55	55	56	55			54	54	57	56	58	58			
6300	60	58	52	42		51	54	54	54	55	54			54	53	55	54	55	55			
8000	56	53	49	43	53		56	56	56	56	56			56	56	56	56	56	56			
10000			49	45	54	53	53	58	58	58	58	53		58	58	58	58	58	58			
OVERALL	101	100	98	97	98	99	101	102	102	103	102	102	102	102	104	105	106	106	106			

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																			
IDENTIFICATION:																			
6.4 DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:																			
F100 ENGINE IN THE (BACKGROUND NOISE) TEMP = 15 C																			
A/F32T-9 N55 AT (SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG																			
MCCONNELL AFB, KANSAS (RUNUP IN THE A/F32T-9) REL HUMID = 70 %																			
FAR FIELD NOISE (N55 MCCONNELL AFB) PAGE 4																			
ANGLE (DEGREES)																			
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																			
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OALC 81 79 82 80 72 71 73 75 77 76 71 73 69 70 70 70 76 77																			
OASLA 71 71 75 73 60 65 67 69 70 67 61 60 59 53 53 53 63 57																			
T 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																			
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL 64 63 67 65 52 57 60 62 59 57 52 52 50 45 45 54 48																			
ANNNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT 86 86 90 88 74 79 79 81 83 79 72 72 70 66 67 67 75 72																			
C 1 1 1 1 1 1 0 0 2 0 0 0 0 0 1 1 0 0																			
** NO DATA COLLECTED																			

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																			
IDENTIFICATION:																			
6.4 DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT:																			
OPERATION:																			
METEOROLOGY:																			
TEMP = 15 C																			
BAR PRESS = 0.760 M HG																			
REL HUMID = 70 %																			
PAGE 4																			
ANGLE (DEGREES)																			
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																			
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC 74 73 74 80 76 73 70 74 74 75 71 72 71 68 74 80 73 74																			
OASLA 65 64 65 71 54 62 58 61 62 62 62 57 56 52 54 70 58 56																			
T 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																			
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL 59 58 58 62 50 50 54 54 54 54 52 48 47 44 46 54 49 46																			
ANNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT 82 80 80 83 69 73 73 76 76 77 74 70 69 64 69 82 72 69																			
C 2 1 1 0 2 0 1 1 0 1 1 1 0 0 1 0 0 0																			
** NO DATA COLLECTED.																			

TABLE	MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:
6.4	DISTANCE : 100 METERS																	OMEGA 1.3
NOISE SOURCE/SUBJECT:	(OPERATION:) METEOROLOGY:)																	TEST DP-OT9-400
F100 ENGINE IN THE	(	INTMD POWER (80.8X RPM)	)	TEMP	=	15 C	)											RUN 02
A/F32T-9 NSS AT	(	SINGLE ENGINE GROUND	)	BAR PRESS	=	0.760 M HG	)											11 MAR 87
MCCONNELL AFB, KANSAS	(	RUNUP IN THE A/F32T-9	)	REL HUMID	=	70 %)											
FAR FIELD NOISE	(	NSS MCCONNELL AFB	)				)											PAGE 4
	ANGLE (DEGREES)																	**
	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
HAZARD/PROTECTION																		
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																		
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																		
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																		
NO PROTECTION																		
OASLC	89	87	83	79	75	78	79	80	80	80	81	81	75	78	79	80	80	79
OASLA	77	74	66	66	55	65	59	61	63	61	61	67	59	63	60	62	64	63
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
COMMUNICATION																		
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																		
PSIL	64	62	58	58	43	52	51	53	55	53	50	54	50	53	52	53	54	
ANNOYANCE																		
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																		
TONE CORRECTION (C IN DB)																		
PNLT	91	89	81	79	72	78	76	79	77	76	76	80	71	75	73	74	77	75
C	1	1	1	0	1	0	1	1	1	0	0	0	0	1	0	0	0	0

** NO DATA COLLECTED.

TABLE	MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:	
6.4	DISTANCE = 100 METERS																	OMEGA 1.5	
NOISE SOURCE/SUBJECT:	(OPERATION:)																	TEST DP-019-400	
F100 ENGINE IN THE	(MILITARY POWER(90.6x RPM))																	RUN 03	
A/F32T-9 NSS AT	(SINGLE ENGINE GROUND)																	TEMP = 15 C	
MCCONNELL AFB, KANSAS	(RUNUP IN THE A/F32T-9)																	BAR PRESS = 0.760 M HG	
FAR FIELD NOISE	(NSS MCCONNELL AFB)																	REL HUMID = 70 %	
	()																	PAGE 4	
	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
	ANGLE (DEGREES)																		**
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC	88	86	87	82	81	84	86	87	87	83	87	84	82	86	88	90		90	90
OASLA	70	68	69	65	58	66	68	70	70	67	72	64	65	69	68	71		70	70
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440		1440	1440
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL	62	60	61	56		59	61	64	59	64	57	57	61	60	63		62	62	
ANNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT	87	84	84	79	74	83	86	88	88	81	87	79	77	82	82	86		85	85
C	1	1	0	1	3	3	2	2	2	1	1	0	0	0	0	0		0	0

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																
IDENTIFICATION:																
6.4 DISTANCE = 100 METERS																
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:																
(F100 ENGINE IN THE) (AFTERBURNER POWER(90.6%)) TEMP = 15 C																
(A/F32T-9 MISS AT) (SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG																
(MCCONNELL AFB, KANSAS) (RUNUP IN THE A/F32T-9) REL HUMID = 70 %																
(FAR FIELD NOISE) (NSS MCCONNELL AFB) PAGE 4																
HAZARD/PROTECTION																
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																
NO PROTECTION																
OASLC 95 94 92 90 92 93 96 96 96 96 97 97 93 95 98 99 102																
OASLA 79 76 74 67 66 72 75 76 78 80 79 74 77 80 79 84 84																
T 1142 1440 1440 1440 1440 1440 1440 1440 1358 960 1142 1440 1440 960 1142 480 480																
COMMUNICATION																
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
PSIL 71 69 66 59 67 68 70 72 71 66 68 71 71 75 75 76																
ANNNOYANCE																
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PMDB)																
TONE CORRECTION (C IN DB)																
PNLT 94 92 89 81 84 87 91 92 93 94 93 88 89 93 94 98																
C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1																
NO DATA COLLECTED.																

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
		OCTAVE BAND																		
6.5		DISTANCE = 100 METERS																	OMEGA 1.5	
																			TEST DP-019-400	
NOISE SOURCE/SUBJECT:		(OPERATION:																	) RUN 05	
F100 ENGINE IN THE		(BACKGROUND NOISE																	) TEMP = 15 C	
A/F32T-9 NSS AT		(SINGLE ENGINE GROUND																	) BAR PRESS = 0.760 M HG	
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9																	) REL HUMID = 70 X	
FAR FIELD NOISE		(NSS MCCONNELL AFB																	) PAGE 5	
FREQ		ANGLE (DEGREES)																	**	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
31.5	72	70	77	73	63	67	71	71	71	70	75	71	74	68	72	68	68	68	76	77
63	78	73	76	72	71	67	67	70	70	70	71	66	69	64	66	68	68	68	72	74
125	76	75	77	77	66	66	64	68	71	68	61	62	61	59	57	57	57	66	62	
250	71	72	72	73	59	60	62	64	70	67	58	58	56	53	54	54	54	64	58	
500	67	64	66	67	58	58	62	64	69	67	59	58	58	51	52	52	52	60	53	
1000	66	65	69	66	56	62	63	64	64	63	57	56	54	48	48	48	48	58	49	
2000	63	63	69	65	50	59	60	62	53	56	51	51	48	42	43	43	43	54	47	
4000	59	60	63	63	45	51	56	55	51	44	42	43	38	39	39	39	39	45	45	
8000	59	61	64	67	38	37	42	43	42	45	42	42	43	42	43	38	38	46	47	
OVERALL	82	79	83	81	73	72	74	76	78	78	73	75	71	73	71	71	71	78	79	

** NO DATA COLLECTED.

TABLE	SOUND PRESSURE LEVEL (DB)	IDENTIFICATION:
6.5	OCTAVE BAND	
	DISTANCE = 100 METERS	OMEGA 1.5
		TEST DP-019-400
		RUN 01
NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
F100 ENGINE IN THE	FLIGHT IDLE (66.7X RPM)	TEMP = 15 C
A/F32T-9 NSS AT	SINGLE ENGINE GROUND	BAR PRESS = 0.760 M HG
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9	REL HUMID = 70 X
FAR FIELD NOISE	NSS MCCONNELL AFB	PAGE 5
FREQ	ANGLE (DEGREES)	**
(HZ)		
0	350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180	
31.5	73 72 72 73 71 69 69 67 72 68 70 71 70 68 75 72	71 75
63	69 66 69 74 75 70 64 74 69 73 68 68 67 65 70 77	69 70
125	66 65 67 74 66 65 63 64 69 69 61 65 62 58 61 72	65 64
250	63 63 64 72 57 64 61 60 63 64 60 57 59 52 52 72	60 57
500	60 60 61 70 48 62 54 58 59 61 61 55 54 50 51 71	57 53
1000	58 57 59 66 43 56 49 53 55 56 58 51 49 46 47 57	51 48
2000	59 57 57 60 36 46 48 52 52 52 48 43 45 41 42 45	46 43
4000	59 57 56 52 38 49 51 51 48 43 41 42 37 43 42	43 42
8000	51 48 45 42 43 43 42 45 38	46 46
OVERALL	76 74 76 80 77 74 72 75 75 76 73 73 72 70 76 80	74 76

** NO DATA COLLECTED.

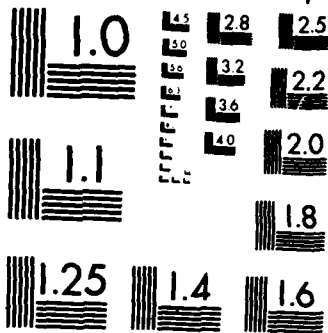
NO-A102 475 FIRST ARTICLE NOISE SURVEY OF THE A/F32T-9 LARGE TURBO 2/2
FAN ENGINE ENCLOSE. (U) AIR FORCE OCCUPATIONAL AND

UNCLASSIFIED MAY 87 USAFOEHL-87-068E0118ENA F/G 24/2 NL

F/G 24/2

NL

FNI
4-27
1964



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																
6.5		OCTAVE BAND																
		DISTANCE = 100 METERS																
		NOISE SOURCE/SUBJECT:																
		(OPERATION:																
		(INTMD POWER (80.8X RPM)																
		(SINGLE ENGINE GROUND																
		(A/F32T-9 NSS AT																
		(MCCONNELL AFB, KANSAS																
		(RUNUP IN THE A/F32T-9																
		(REL HUMID = 70 X																
		(NSB MCCONNELL AFB																
		(PAGE 5																
		METEOROLOGY:																
		TEMP = 15 C																
		BAR PRESS = 0.760 H HG																
		REL HUMID = 70 X																
		ANGLE (DEGREES)																
		FREQ																
		(HZ)																
		0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
		31.5 68 86 84 80 76 77 79 81 81 82 82 80 77 79 80 80 80																
		63 80 79 77 74 70 73 75 75 76 76 76 75 70 73 73 76 76																
		125 82 82 70 69 69 70 69 72 68 68 68 69 71 63 67 62 66 69																
		250 82 79 65 67 58 71 58 61 62 61 66 73 58 61 59 59 66 66																
		500 75 71 60 62 51 63 54 55 55 55 57 65 58 62 59 61 64 64																
		1000 64 64 60 61 45 55 50 52 58 53 50 59 54 58 54 56 57 55																
		2000 57 56 57 57 38 46 51 51 53 53 47 46 47 50 49 51 51 47																
		4000 58 57 56 52 37 43 50 52 49 48 45 44 41 44 45 45 45 45																
		8000 58 56 55 45 42 44 48 53 49 48 47 46 42 43 47 47 47 47																
		OVERALL 90 89 85 82 78 80 81 82 82 83 83 82 78 80 81 82 82 82																

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																
6.5		DISTANCE = 100 METERS																
NOISE SOURCE/SUBJECT:		OPERATION:																
F100 ENGINE IN THE		MILITARY POWER(90.6X RPM)																
A/F32T-9 NSS AT		SINGLE ENGINE GROUND																
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																
FAR FIELD NOISE		NSS MCCONNELL AFB																
FREQ		ANGLE (DEGREES)																
(HZ)		0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
31.5		89	87	87	84	83	84	87	88	86	84	88	86	83	87	90	91	91
63		85	82	83	76	75	80	82	83	84	79	83	78	79	81	83	87	85
125		77	75	76	72	66	75	75	74	75	72	75	69	71	74	74	75	77
250		71	68	68	64	62	67	68	71	70	65	65	63	63	65	66	66	67
500		64	62	63	59	51	57	61	63	64	62	66	61	63	68	66	71	69
1000		61	60	60	59	45	54	57	60	64	62	67	58	58	63	62	64	65
2000		63	61	61	58	52	61	63	66	62	60	65	57	55	59	58	61	61
4000		61	58	59	47			54	54	54	52	57	52	49	53	53	55	55
8000		57	52	55				51	51	51	51	51	50	51	51	51	51	51
OVERALL		90	88	89	85	84	86	89	90	89	86	90	87	85	89	91	92	93

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																	
6.5		OCTAVE BAND																	
		DISTANCE = 100 METERS																	
NOISE SOURCE/SUBJECT:		OPERATION:																	
F100 ENGINE IN THE		AFTERBURNER POWER(90.6%)																	
A/F32T-9 M8S AT		SINGLE ENGINE GROUND																	
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																	
FAR FIELD NOISE		M8S MCCONNELL AFB																	
FREQ		ANGLE (DEGREES)																	
(HZ)																			
		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170
		90	90	90	90	89	89	90	90	92	91	91	93	92	92	91	90	91	91
		94	93	91	89	90	89	91	91	93	93	91	92	94	95	92	96	96	95
		16	97	93	93	94	96	97	99	98	100	99	99	99	102	102	101	102	103
		31.5	95	92	90	90	92	96	96	95	96	97	95	92	96	99	102	101	101
		63	91	90	89	89	88	91	91	90	92	92	88	89	90	93	98	98	98
		125	82	81	81	71	76	82	81	82	82	83	83	76	78	81	80	85	84
		250	77	74	73	66	67	75	73	77	77	78	75	73	77	75	74	77	78
		500	72	69	70	62	58	69	70	72	74	76	76	71	76	80	78	83	84
		1000	73	70	68	62	55	62	69	71	73	75	74	68	70	74	74	78	77
		2000	72	70	66	59	51	60	66	68	70	72	69	65	67	70	70	74	73
		4000	68	64	62	52		61	63	64	65	63	59	58	63	63	67	66	67
		8000	62	59	55	48	56	53	61	61	61	61	61	58	61	61	61	61	61
OVERALL		101	100	98	97	98	99	101	102	102	103	102	102	102	104	105	106	106	106

** NO DATA COLLECTED.

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APPENDIX E

Far-Field Noise on the

TF41-A1 Engine

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TABLE 7.1

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS
TF41-A1 ENGINE IN THE A/F32T-9 NOISE SUPPRESSOR SYSTEM
McCONNELL AFB, KANSAS

Date of Test: 6 March 1986

Time of Test: 0945 Hrs

Engine Operation

Idle	57.2 %RPM
80 %	80.7 %RPM
Military Power	96.5 %RPM

Meteorology

Temperature	16 Deg C
Bar Pressure	0.728 M Hg
Rel Humidity	56 %
Winds - Speed	3 - 8 Knots
- Direction	260 Deg (True)

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
7.2		1/3 OCTAVE BAND																OMEGA 1.5	
		DISTANCE = 100 METERS																TEST DP-019-SBO	
NOISE SOURCE/SUBJECT:		(OPERATION:																RUN 05	
TF41 ENGINE IN THE		(BACKGROUND NOISE																	
A/F32T-9 NSS		(SINGLE ENGINE GROUND																11 MAR 87	
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9																	
FAR FIELD NOISE		(NSS MCCONNELL AFB																PAGE 2	
FREQ		ANGLE (DEGREES)																	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
25		58	58	59	57	52	54	57	59	61	59	59	56	57	59	58	59	59	63 56
31.5		61	60	60	59	58	61	59	62	64	65	63	61	60	64	65	62	62	70 59
40		61	59	60	61	57	58	58	64	64	70	67	64	63	66	69	65	65	89 82
50		62	62	61	64	58	57	58	62	64	66	60	61	60	61	63	64	64	69 60
63		64	63	65	66	58	61	62	62	63	64	61	63	60	61	63	61	61	69 62
80		64	64	63	65	55	58	62	60	59	62	59	59	59	58	60	59	61	63 61
100		64	66	64	65	53	55	62	59	58	61	57	59	57	56	57	59	59	59 59
125		65	66	66	67	54	55	59	58	58	61	58	57	56	56	58	56	58	58 59
160		62	65	64	67	50	50	55	55	56	61	56	55	54	52	54	57	56	56 56
200		67	69	67	66	55	56	58	62	58	61	55	58	52	54	50	53	55	56 55
250		57	66	61	60	48	51	50	53	53	58	49	49	46	50	48	49	50	50 51
315		54	63	61	61	45	48	49	50	51	56	48	48	46	51	49	51	51	51 51
400		57	60	62	61	45	51	52	53	50	56	52	53	50	54	51	53	51	51 52
500		54	58	58	60	40	46	48	50	48	51	49	48	47	51	50	52	49	49 49
630		53	60	59	60	38	44	47	51	50	51	49	48	47	53	52	52	49	48 48
800		52	57	60	61	35	41	45	49	50	50	49	46	45	51	50	50	46	46 46
1000		51	56	56	59	33	38	44	46	46	46	49	45	42	51	48	48	43	43 43
1250		53	57	56	57	32	35	41	43	43	47	42	40	41	48	47	47	41	41 41
1500		53	56	55	54	31	32	39	41	41	48	41	37	38	45	45	47	40	39 39
2000		50	53	53	53	28	28	36	39	39	45	39	34	35	43	42	45	38	36 36
2500		46	51	52	54	26	26	35	38	36	41	35	30	33	42	39	42	36	34 34
3150		42	48	48	52	28	27	33	36	34	37	32	27	31	38	36	39	36	33 33
4000		37	45	45	50	29	29	32	34	34	36	31	26	30	35	33	35	34	33 33
5000		32	42	42	48	29	26	30	29	31	32	31	25	30	32	31	32	32	31 31
6300		30	37	34	40	30	26	30	26	31	32	31	26	30	31	31	31	32	31 31
8000		31	34	32	35	31	27	32	27	32	30	32	27	32	32	32	32	32	32 32
10000		28	30	29	30	32	28	33	28	32	29	33	28	33	33	33	33	33	33 33
OVERALL		74	76	75	76	66	68	70	71	72	75	71	70	69	71	73	71	76	70 70

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																				
DISTANCE = 100 METERS																			OMEGA 1.5	
																			TEST DP-019-580	
NOISE SOURCE/SUBJECT:		METEOROLOGY:																	RUN 01	
(FLIGHT IDLE(57.2x RPM)		TEMP = 16 C																		
(SINGLE ENGINE GROUND		BAR PRESS = 0.728 M HG																	11 MAR 87	
(RUNUP IN THE A/F321-9		REL HUMID = 56 %																		
(MSS MCCONNELL AFB																			PAGE 2	
		ANGLE (DEGREES)																		
FREQ (HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	71	68	69	66	64	65	64	65	65	68	68	67	66	65	66	67	65	64	68	
31.5	77	75	70	70	65	61	62	68	73	70	68	71	71	71	70	70	69	73	72	
40	75	76	72	70	59	60	62	64	67	68	69	69	67	65	64	64	67	69	69	
50	70	69	70	66	62	62	63	64	68	67	63	64	63	64	63	64	65	67	68	
63	76	73	69	70	63	65	67	64	69	66	61	65	63	63	63	63	63	65	67	
80	63	62	73	71	58	58	60	60	66	59	58	63	59	60	60	60	58	60	64	
100	60	60	76	75	60	56	58	60	63	59	59	61	58	57	57	60	58	60	64	
125	61	59	69	66	60	55	56	57	61	56	55	58	55	55	55	55	56	56	56	
160	59	59	63	62	57	53	51	56	60	53	50	54	50	51	52	53	51	52	51	
200	61	65	65	64	56	53	49	56	63	54	49	52	50	48	47	50	50	50	50	
250	57	57	58	58	54	52	47	53	59	48	44	48	47	45	44	49	51	46	47	
315	57	54	55	57	52	52	46	49	58	47	44	47	48	47	45	46	47	47	47	
400	56	54	56	60	51	51	46	48	58	47	46	48	50	48	46	47	46	46	46	
500	52	51	54	55	49	53	44	46	57	47	44	45	50	47	44	46	47	47	45	
630	53	54	55	55	44	47	44	43	54	46	47	45	47	46	46	46	46	47	46	
800	52	53	54	55	39	37	43	43	50	45	46	43	44	45	45	45	47	47	45	
1000	50	50	53	52	35	34	40	43	47	43	44	42	42	42	44	46	45	45	44	
1250	49	50	53	53	33	34	42	44	46	44	44	42	40	43	46	43	44	43	44	
1600	48	50	53	53	30	32	38	39	46	42	42	42	39	41	44	42	43	42	43	
2000	48	48	51	52	29	31	38	38	45	42	39	37	35	38	41	39	40	40	40	
2500	47	46	50	49	28	31	37	38	43	38	37	35	33	36	38	36	36	36	38	
3150	45	44	48	47	30	32	36	36	40	35	34	33	33	33	35	37	34	33	33	
4000	43	42	45	44	29	33	35	36	40	36	34	33	33	34	34	34	34	31	34	
5000	41	40	42	41	29	34	35	35	40	35	34	33	34	34	34	34	34	30	34	
6300	39	38	39	39	30	35	35	35	40	35	35	35	35	35	35	35	35	30	35	
8000	38	37	38	38	32	37	37	37	41	37	36	36	36	36	37	37	37	32	37	
10000	38	38	38	38	33	36	38	38	43	38	37	37	37	38	38	38	38	33	38	
OVERALL	82	81	81	80	72	71	72	73	78	75	74	75	74	74	74	74	74	76	76	

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
1/3 OCTAVE BAND																			
7.2		DISTANCE = 100 METERS																OMEGA 1.5	
NOISE SOURCE/SUBJECT:																		TEST DP-019-580	
TF41 ENGINE IN THE																		RUN 02	
A/F32T-9 NSS																			
MCCONNELL AFB, KANSAS																		11 MAR 87	
FAR FIELD NOISE																			
																		PAGE 2	
FREQ																			
(HZ)																			
		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
		ANGLE (DEGREES)																	
25		88	85	85	81	79	76	78	80	80	79	81	79	77	77	80	74	78	79
31.5		88	85	79	75	73	73	78	77	78	79	78	76	72	75	75	74	75	76
40		83	82	77	73	68	71	74	79	75	75	75	72	70	71	71	75	69	71
50		79	78	77	76	69	73	71	74	73	73	70	70	67	68	69	73	68	70
63		79	76	74	70	69	73	72	71	73	72	70	68	66	67	68	70	65	68
80		70	69	68	65	71	67	66	68	66	68	66	66	70	60	62	65	62	64
100		67	66	66	62	65	67	63	64	63	62	62	63	59	56	58	59	59	59
125		69	64	64	62	64	63	61	62	61	60	57	61	56	54	56	58	57	57
160		62	62	62	61	57	59	56	59	58	57	52	56	53	50	52	56	56	53
200		63	63	64	62	55	57	55	57	59	56	51	52	50	46	47	54	51	53
250		58	58	58	58	54	54	49	56	56	54	48	47	44	45	44	55	45	45
315		56	56	55	58	51	50	45	56	54	56	49	45	45	47	43	55	45	43
400		59	57	55	62	48	47	47	54	54	56	51	46	46	48	47	54	47	46
500		55	50	51	55	45	46	46	53	52	53	49	46	44	47	48	52	46	45
630		55	50	50	55	43	46	45	51	50	51	51	47	43	47	49	50	46	45
800		53	49	50	55	41	45	44	49	50	49	52	44	42	47	47	48	44	44
1000		52	49	50	51	38	44	42	47	49	49	51	43	41	43	47	47	43	43
1250		51	48	50	50	35	42	41	44	47	47	52	42	41	43	47	45	42	42
1600		50	48	51	49	32	41	41	43	47	45	49	42	38	41	45	42	40	40
2000		52	49	49	50	31	38	40	43	50	53	57	41	35	41	42	40	39	37
2500		55	52	51	50	33	40	45	47	52	48	54	42	35	39	41	40	41	40
3150		52	51	48	48	33	38	42	43	44	41	45	42	34	37	38	38	38	36
4000		47	46	44	46	33	37	38	40	40	37	38	38	33	38	38	38	39	34
5000		50	49	46	43	34	38	40	41	41	38	39	40	35	40	41	40	40	37
6300		45	44	41	38	35	37	37	41	40	36	36	40	35	40	40	40	40	36
8000		44	42	39	38	37	37	38	42	42	37	37	42	37	42	42	42	42	37
10000		44	39	38	38	38	38	38	43	43	38	38	43	38	43	43	43	43	38
OVERALL		92	90	87	84	81	81	83	84	84	84	84	82	80	80	82	81	81	82

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:			
1/3 OCTAVE BAND																						
7.2		DISTANCE = 100 METERS																	OMEGA 1.5			
NOISE SOURCE/SUBJECT:		(OPERATION:																	TEST DP-OT9-580			
TF41 ENGINE IN THE		(MILITARY PWR (96.3% RPM)																	RUN 03			
A/F32T-9 NSS		(SINGLE ENGINE GROUND																	11 MAR 87			
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9																	56 X			
FAR FIELD NOISE		(NSS MCCONNELL AFB																	PAGE 2			
FREQ	(HZ)	0	350	340	330	40	50	60	70	80	ANGLE (DEGREES)			110	120	130	140	150	160	170	180	**
25	88	85	86	82	83	83	83	83	85	83	87	83	84	79	84	87	85	84	86			
31.5	87	85	82	80	80	82	82	84	85	83	86	84	82	78	82	83	87	86	88			
40	86	85	82	76	78	80	80	84	85	85	82	82	79	76	78	80	85	83	85			
50	82	81	80	72	74	77	77	80	81	82	79	79	76	76	77	80	81	81	81			
63	85	80	80	72	75	79	79	81	79	81	83	80	75	75	76	78	82	79	80			
80	80	78	76	71	71	76	76	79	80	80	81	78	73	72	73	74	74	77	77			
100	75	76	74	65	67	73	77	77	77	74	74	73	68	69	71	70	74	74	72			
125	72	71	71	63	64	72	75	74	72	72	74	69	67	65	68	67	70	72	69			
160	70	69	67	62	60	69	72	72	72	69	71	68	66	61	63	64	65	69	67			
200	66	67	66	62	58	66	68	68	72	68	69	63	63	58	60	61	63	67	68			
250	63	62	62	58	53	65	63	63	68	64	68	58	58	55	59	56	59	60	60			
315	61	61	59	57	50	62	61	66	64	66	64	57	54	53	57	55	61	57	59			
400	63	62	61	63	51	58	60	63	67	66	66	60	53	55	59	61	65	61	63			
500	62	60	60	59	48	55	58	62	67	65	65	60	54	56	60	62	65	60	61			
630	60	60	58	57	46	52	56	60	61	62	62	59	52	54	58	60	64	60	62			
800	60	60	58	57	43	50	56	59	61	60	58	51	51	53	56	58	61	61	62			
1000	60	60	59	55	42	51	56	58	61	61	58	51	52	56	58	60	60	60	60			
1250	59	58	58	54	41	51	55	58	60	61	57	50	51	51	54	56	58	56	58			
1600	59	59	59	53	40	50	54	56	57	59	54	49	49	49	52	54	57	55	57			
2000	60	59	58	53	41	49	54	58	59	59	55	48	47	51	53	55	55	54	56			
2500	59	58	57	52	41	48	53	57	59	57	54	48	47	49	51	53	54	53	54			
3150	58	57	55	50	39	45	51	53	54	54	51	46	43	47	48	52	50	51	51			
4000	58	56	54	47	38	43	49	51	49	51	47	43	41	44	46	49	48	49	48			
5000	53	52	50	43	39	42	45	48	45	50	46	41	41	41	44	46	50	48	49			
6300	50	48	47	42	40	41	43	46	42	47	42	41	40	42	42	46	43	46	43			
8000	47	46	46	42	42	45	43	47	43	47	43	42	42	42	42	43	47	43	47			
10000	44	44	44	43	43	43	43	43	48	43	48	43	43	43	43	43	48	43	48			
OVERALL	93	91	90	86	87	88	90	90	91	91	92	89	88	85	88	90	92	91	92			

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
DISTANCE = 100 METERS																		
NOISE SOURCE/SUBJECT:																		
(TF41 ENGINE IN THE)																		
(A/F32T-9 NSS)																		
(MCCONNELL AFB, KANSAS)																		
(FAR FIELD NOISE)																		
(NSS MCCONNELL AFB)																		

** NO DATA COLLECTED.

TABLE	SOUND PRESSURE LEVEL (DB)	IDENTIFICATION:
7.3	1/3 OCTAVE BAND DISTANCE = 100 METERS	OMEGA 1.5 TEST DP-079-380
NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
TF41 ENGINE IN THE	FLIGHT IDLE (57.2x RPM)	TEMP = 15 C
A/F32T-9 NSS	SINGLE ENGINE GROUND	BAR PRESS = 0.760 M HG
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9	REL HUMID = 70 X
FAR FIELD NOISE	NSS MCCONNELL AFB	PAGE 3
FREQ (HZ)	ANGLE (DEGREES)	**
0	350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180	
25	71 68 66 64 65 65 65 65 68 68 67 66 66 67 66 67 66 68	64 68
31.5	77 75 70 70 65 61 62 68 73 70 68 71 71 71 70 69 69 72	73 72
40	75 77 73 71 59 60 62 64 68 68 69 69 67 66 64 67 69 69	69 69
50	70 69 70 66 62 62 63 65 68 67 63 65 63 64 65 64 67 68	67 68
63	76 73 69 70 64 65 67 64 69 66 61 65 64 63 63 63 65 67	65 67
80	63 62 73 71 59 58 60 60 66 59 58 63 59 60 60 58 60 64	60 64
100	60 60 76 75 60 56 58 60 64 59 59 61 58 58 57 60 57 61	57 61
125	61 60 69 66 60 55 56 57 61 57 55 59 56 55 55 62 56 57	56 57
160	59 59 63 62 58 53 52 56 60 53 50 55 50 51 52 53 51 52	51 52
200	61 65 65 64 56 53 49 56 63 54 49 52 50 48 47 50 50 50	50 50
250	57 57 58 58 54 52 47 53 59 48 44 48 47 46 44 49 51 46	51 46
315	57 54 55 57 52 52 46 50 58 47 44 47 48 47 45 47 47 47	47 47
400	56 54 56 60 51 51 47 48 58 48 46 48 50 48 46 47 46 46	46 46
500	53 52 55 55 49 53 44 46 57 47 44 45 50 47 44 46 47 45	47 45
630	53 54 55 55 44 47 44 43 54 46 47 45 47 47 46 46 47 46	47 46
800	52 53 54 55 39 37 43 43 50 45 46 43 44 45 45 45 47 45	47 45
1000	50 50 53 52 35 34 40 43 47 43 44 42 42 44 46 45 45 44	45 44
1250	49 50 53 53 33 34 42 44 47 44 44 42 40 43 46 43 44 43	44 43
1600	48 50 53 53 31 32 39 40 46 42 42 40 39 41 44 42 43 43	43 43
2000	48 48 51 52 30 31 38 38 45 42 40 38 35 38 41 40 40 40	40 40
2500	48 47 51 49 28 32 37 38 44 39 37 35 34 36 39 36 37 38	37 38
3150	45 44 48 47 30 33 36 36 41 36 35 33 33 35 37 34 33 35	33 35
4000	43 42 46 44 30 34 36 36 41 36 34 34 34 35 34 35 31 35	31 35
5000	41 41 43 41 30 35 36 36 41 36 35 35 35 35 35 30 35 35	30 35
6300	41 39 40 40 32 36 37 37 41 36 36 36 36 36 37 32 36 36	32 36
8000	39 39 39 40 33 38 38 38 43 38 38 38 38 38 38 38 38 38	38 38
10000	40 40 40 40 35 40 40 40 45 40 40 39 40 40 40 40 40 40	40 40
OVERALL	82 81 81 80 72 71 72 73 78 75 74 76 75 74 74 74 76 77	76 77

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:		
1/3 OCTAVE BAND																				
7.3		DISTANCE = 100 METERS																OMEGA 1.5		
																		TEST DP-019-580		
NOISE SOURCE/SUBJECT:		(OPERATION:																METEOROLOGY:		
TF41 ENGINE IN THE		(INTMD POWER (80.7% RPM)																TEMP = 15 C		
A/F32T-9 NSS		(SINGLE ENGINE GROUND																BAR PRESS = 0.760 M HG		
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9																REL HUMID = 70 %		
FAR FIELD NOISE		(NSS MCCONNELL AFB																PAGE 3		
FREQ		ANGLE (DEGREES)																		
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25		88	85	85	81	79	76	79	80	80	79	81	79	77	77	80	74	78	80	
31.5		88	86	80	76	73	73	78	77	79	79	78	76	72	75	75	74	76	76	
40		83	83	78	74	68	71	74	79	75	75	75	72	70	71	72	75	70	71	
50		79	78	77	76	69	74	71	74	73	73	70	70	67	68	69	73	68	70	
63		80	76	74	70	69	73	72	71	73	72	70	68	66	67	68	70	65	68	
80		70	69	68	65	71	67	66	68	66	68	66	66	70	60	62	65	62	64	
100		67	66	66	62	65	67	63	64	63	63	63	63	59	56	59	60	59	59	
125		69	65	64	62	64	63	61	62	61	60	57	61	56	54	56	58	57	57	
160		62	62	62	61	58	59	57	59	58	57	52	56	53	50	52	56	56	53	
200		63	65	64	62	55	57	55	58	59	56	51	53	50	46	47	54	51	53	
250		58	58	58	58	54	54	49	56	56	54	48	47	44	45	44	55	45	45	
315		56	56	55	58	51	50	45	56	55	56	49	45	45	47	43	55	45	44	
400		59	57	56	62	49	48	47	54	54	56	51	46	46	48	47	54	47	46	
500		55	50	51	55	45	46	46	53	52	53	49	46	44	47	48	52	46	45	
630		55	50	50	55	43	46	45	51	50	51	51	47	43	47	49	50	46	45	
800		53	49	50	55	41	45	44	49	50	49	52	44	42	47	47	48	44	44	
1000		52	49	50	51	38	44	42	47	49	49	51	43	41	43	47	47	43	43	
1250		51	48	50	50	35	42	41	44	48	47	52	42	41	43	47	46	42	42	
1600		51	48	51	49	32	41	41	43	47	43	49	42	38	41	45	42	40	41	
2000		52	49	49	50	31	39	40	43	50	53	57	41	35	41	42	41	39	37	
2500		55	53	51	50	33	40	46	48	52	49	55	43	35	39	41	40	41	41	
3150		52	51	49	48	33	38	42	43	44	42	45	42	34	38	39	38	39	36	
4000		48	47	45	47	34	38	38	41	40	38	38	39	34	39	39	39	39	35	
5000		51	50	46	43	35	39	41	42	41	39	40	40	35	40	41	41	41	37	
6300		46	45	42	40	37	38	38	42	41	37	37	41	37	41	41	41	42	37	
8000		46	44	41	39	36	39	39	43	43	38	38	43	38	43	43	43	43	38	
10000		46	41	40	40	40	40	40	45	45	40	40	45	40	45	45	45	45	40	
OVERALL		92	90	88	84	82	81	83	85	84	84	84	82	80	80	82	81	81	82	

NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:									
7.3		1/3 OCTAVE BAND																			
		DISTANCE = 100 METERS										OMEGA 1 5									
												TEST DP-019-SBO									
												RUN 03									
NOISE SOURCE/SUBJECT:		OPERATION:										METEOROLOGY:									
TF41 ENGINE IN THE		MILITAR PWR (96.3% RPM)										TEMP = 15 C									
A/F321-9 NSS		SINGLE ENGINE GROUND										BAR PRESS = 0.760 M HG									
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F321-9										REL HUMID = 70 %									
FAR FIELD NOISE		NSS MCCONNELL AFB										PAGE 3									
FREQ		ANGLE (DEGREES)																			
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
25	88	85	86	83	83	83	83	85	83	87	83	84	79	84	87	85	84	86			
31.5	87	85	82	80	81	82	84	85	84	87	84	82	78	83	83	87	87	88			
40	86	85	82	76	78	80	84	85	85	82	82	79	77	79	80	85	83	85			
50	83	82	81	72	74	77	80	81	82	79	75	76	76	77	80	81	81	81			
63	85	81	80	73	75	79	81	80	81	83	80	75	75	76	78	83	79	80			
80	80	78	76	71	71	76	79	80	80	81	78	73	72	73	74	74	77	77			
100	75	76	74	65	68	74	77	77	75	74	73	68	69	71	70	74	74	72			
125	72	71	71	63	64	72	75	74	72	74	69	67	65	68	67	70	72	69			
160	70	69	67	62	60	69	72	72	69	71	68	66	61	63	64	65	69	68			
200	67	68	67	62	58	66	68	72	68	69	63	63	59	60	61	63	68	68			
250	63	62	62	58	53	65	63	68	64	68	58	58	55	59	56	59	60	60			
315	61	61	59	57	50	62	61	66	65	66	57	54	53	57	55	61	57	59			
400	63	62	61	63	51	58	60	64	67	66	60	53	55	59	61	65	61	64			
500	62	60	60	59	48	55	58	62	67	65	60	54	56	60	62	66	60	61			
630	60	60	58	57	46	52	56	60	61	62	59	52	54	58	60	64	60	62			
800	60	60	59	58	43	50	56	59	61	60	58	51	53	56	58	62	61	62			
1000	60	60	59	55	42	51	56	58	61	61	58	51	52	56	58	60	60	60			
1250	59	58	58	54	41	51	56	58	60	61	57	50	51	54	56	58	57	59			
1600	60	59	59	53	40	50	54	56	57	59	54	49	49	52	54	57	55	57			
2000	60	59	58	53	41	49	54	58	60	59	55	49	48	51	53	56	54	56			
2500	60	58	57	53	41	48	53	57	59	57	54	49	47	50	52	54	53	54			
3150	59	57	55	50	39	45	51	54	54	55	51	47	44	47	49	52	51	52			
4000	58	57	55	48	39	43	50	51	50	52	48	44	42	45	47	50	49	50			
5000	54	52	50	44	40	42	46	49	46	51	47	42	42	45	47	51	49	49			
6300	51	49	48	43	41	42	44	47	44	48	43	42	42	43	44	48	45	48			
8000	48	47	47	44	43	46	44	48	44	48	44	44	43	44	44	48	45	48			
10000	46	46	46	45	45	45	45	50	45	50	45	45	45	45	45	50	45	50			
OVERALL	94	91	90	86	87	88	91	92	91	92	90	88	85	88	90	92	91	92			

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																			
IDENTIFICATION:																			
7.4 DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT:																			
OPERATION:																			
METEOROLOGY:																			
TEMP = 15 C																			
BAR PRESS = 0.760 M HG																			
REL HUMID = 70 %																			
PAGE 4																			
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DB) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DB) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC	74	76	75	76	65	67	69	70	70	74	70	69	68	70	71	70	75	69	
OASLA	64	66	67	68	50	53	56	58	57	60	56	55	54	59	57	59	56	56	
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL	54	59	59	61	38	41	46	48	47	51	47	43	44	50	49	51	47	46	
ANNNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PHNS)																			
TONE CORRECTION (C IN DB)																			
PNLT	78	82	80	81	65	66	70	73	70	73	69	69	67	70	69	71	70	69	
C	1	1	1	0	1	1	1	1	1	0	1	1	1	0	0	0	1	0	
** NO DATA COLLECTED.																			

TABLE 7.4		MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																		IDENTIFICATION:	
		DISTANCE 100 METERS																			
NOISE SOURCE/SUBJECT		OPERATION:																			
T/F41 ENGINE IN THE		FLIGHT IDLE (57.2% RPM)																		METEOROLOGICAL:	
A/F327-9 WSS		SINGLE ENGINE GROUND																		TEMP	
MCCONNELL AFB, KANSAS		RUMUP IN THE A/F327-9																		BAR PRESS 0.760 IN HG	
FAR FIELD NOISE		WSS MCCONNELL AFB																		REL HUMID 70 %	
																				PAGE 4	
HAZARD/PROTECTION		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	00
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																					
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																					
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																					
NO PROTECTION																					
OASLC		80	79	80	79	70	69	71	71	76	73	72	74	72	72	72	72	72	74	74	74
OASLA		62	62	65	65	55	55	53	55	62	55	54	54	54	54	55	55	55	55	55	55
T		1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
COMMUNICATION																					
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																					
PSIL		54	54	56	57	41	43	45	46	52	47	46	45	45	46	47	46	46	46	46	46
ANNNOYANCE																					
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PHNB)																					
TONE CORRECTION (C IN DB)																					
PNLT		77	78	82	81	67	69	68	70	76	69	67	68	67	67	68	70	67	68	67	68
C		0	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
NO DATA COLLECTED																					

TABLE		MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:	
7.4		DISTANCE : 100 METERS																		
NOISE SOURCE/SUBJECT:		(OPERATION:																	METEOROLOGY:	
(IF41 ENGINE IN THE		(INTND POWER (80.7% RPM)																	(TEMP : 15 C	
(A/F32T-9 NSS		(SINGLE ENGINE GROUND																	(BAR PRESS : 0.760 M HG	
(MCCONNELL AFB, KANSAS		(RUMUP IN THE A/F32T-9																	(REL HUMID : 70 %	
(FAR FIELD NOISE		(NSS MCCONNELL AFB																	(PAGE 4	
HAZARD/PROTECTION		ANGLE (DEGREES)																	00	
		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																				
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																				
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																				
NO PROTECTION																				
OASLC		89	87	84	81	79	79	80	82	81	81	81	79	77	77	79	79	79	79	79
OASLA		66	64	63	64	56	58	57	60	61	61	63	56	54	56	57	59	55	55	55
T		1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
COMMUNICATION																				
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																				
PSIL		58	55	55	57	43	47	48	52	53	53	53	48	44	48	49	50		47	46
ANNNOYANCE																				
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																				
TONE CORRECTION (C IN DB)																				
PNLT		83	80	79	79	72	73	73	76	78	78	79	71	70	69	70	73		70	70
C		1	1	1	1	0	0	1	1	1	2	2	0	0	0	0	0	0	0	1
** NO DATA COLLECTED																				

TABLE 7.4 MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)		IDENTIFICATION:																	
DISTANCE : 100 METERS																			
NOISE SOURCE/SUBJECT:																			
(IF41 ENGINE IN THE)																			
(A/F32T-9 NSS)																			
(MCCONNELL AFB, KANSAS)																			
(FAR FIELD NOISE)																			
(OPERATION:)																			
(MILITARY PWR (96.3X RPM))																			
(SINGLE ENGINE GROUND)																			
(RUMUP IN THE A/F32T-9)																			
(NSS MCCONNELL AFB)																			
METEOROLOGY:																			
TEMP :																			
BAR PRESS :																			
REL HUMID :																			
PAGE 4																			
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DB) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DB) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC		91	89	88	83	84	86	89	89	90	87	85	83	85	87	89	89	90	
OASLA		72	71	70	66	59	66	69	71	72	72	68	63	63	66	68	71	69	70
T		1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL		64	64	62	59	48	55	59	62	64	64	60	54	54	58	60	63	61	62
ANNNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PHDB)																			
TONE CORRECTION (C IN DB)																			
PNLT		88	86	85	81	75	82	85	87	87	83	78	78	80	82	86	83	85	
C		0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1
** NO DATA COLLECTED																			

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:															
7.5		DISTANCE : 100 METERS															
NOISE SOURCE/SUBJECT:		OPERATION:															
TF41 ENGINE IN THE		BACKGROUND NOISE															
A/F32T-9 NSS		SINGLE ENGINE GROUND															
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9															
FAR FIELD NOISE		NSS MCCONNELL AFB															
FREQ		ANGLE (DEGREES)															
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150
31.5		65	64	64	64	61	63	63	67	68	71	69	66	65	69	71	67
63		69	68	68	70	62	64	66	66	67	69	65	66	65	65	67	67
125		69	71	69	71	57	59	65	62	62	66	62	62	61	60	61	62
250		68	72	69	68	56	58	59	63	60	64	57	59	54	57	54	56
500		60	64	65	65	47	53	54	56	55	58	55	55	53	57	56	57
1000		57	62	63	64	39	43	49	52	52	54	51	48	48	55	53	53
2000		55	59	58	59	34	34	42	45	44	50	44	39	41	49	48	50
4000		44	51	51	56	34	33	37	39	39	41	37	31	36	41	39	41
8000		36	41	39	43	30	33	38	34	38	36	38	33	38	38	39	38
OVERALL		74	76	75	76	66	68	70	71	72	75	71	71	69	71	73	71
		DB															
		160 170 180															
		76 70															

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																		
OCTAVE BAND																				
DISTANCE : 100 METERS																				
NOISE SOURCE/SUBJECT:		OPERATION:		METEOROLOGY:																
TF41 ENGINE IN THE		FLIGHT IDLE (57.2% RPM)		TEMP		15 C														
A/F32T-9 MSS		SINGLE ENGINE GROUND		BAR PRESS : 0.760 IN HG		11 MAR 87														
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9		REL HUMID : 70 %																
FAR FIELD NOISE		MSS MCCONNELL AFB																		
FREQ		ANGLE (DEGREES)																		
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
31.5	80	79	75	74	68	67	68	71	75	74	73	74	73	73	72	72	72	75	75	75
63	77	75	76	75	67	68	69	68	73	70	66	69	67	68	68	67	67	70	71	71
125	65	64	77	76	64	60	61	63	67	62	61	64	61	60	60	65	65	60	62	62
250	64	66	66	66	59	57	53	59	66	56	51	55	53	52	50	54	54	55	53	53
500	59	58	60	62	54	56	50	51	61	52	51	51	54	52	50	51	51	52	51	51
1000	55	56	58	58	41	40	47	48	53	49	50	47	47	49	50	49	49	50	49	49
2000	53	53	57	57	34	36	43	43	43	50	46	45	43	41	44	47	45	46	46	46
4000	48	47	51	50	35	39	41	41	46	41	39	39	39	40	41	39	37	37	40	40
8000	45	44	44	44	38	43	43	43	48	48	43	43	43	43	43	43	43	38	43	43
OVERALL	82	81	81	80	72	71	72	72	73	78	75	74	76	75	74	74	74	76	77	77

NO DATA COLLECTED

NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
7.5		OCTAVE BAND																	OMEGA 1.5	
		DISTANCE = 100 METERS																	TEST DP-019-S80	
NOISE SOURCE/SUBJECT:		(OPERATION:																	RUN 02	
TF41 ENGINE IN THE		(INTMD POWER (80.7x RPM)																	15 C	
A/F32T-9 MSS		(SINGLE ENGINE GROUND																	BAR PRESS = 0.760 M HG	
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9																	REL HUMID = 70 X	
FAR FIELD NOISE		(MSS MCCONNELL AFB																	PAGE 5	
FREQ		ANGLE (DEGREES)																	**	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
31.5	92	89	87	83	80	79	77	75	72	69	66	63	60	57	54	51	48	45	42	39
63	83	80	79	77	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44
125	72	70	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35
250	65	66	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31
500	62	59	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24
1000	57	54	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19
2000	50	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19
4000	55	54	52	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19
8000	51	48	44	44	43	44	44	44	48	48	43	43	43	43	43	43	43	43	43	43
OVERALL	92	90	88	84	82	81	83	85	84	84	84	84	82	80	80	82	81	81	82	82

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
OCTAVE BAND																				
7.5		DISTANCE = 100 METERS																	OMEGA 1.5	
NOISE SOURCE/SUBJECT:																			TEST DP-019-SBO	
TF41 ENGINE IN THE																			RUN 03	
A/F32T-9 NSS																			11 MAR 87	
MCCONNELL AFB, KANSAS																				
FAR FIELD NOISE																			PAGE 5	
FREQ		ANGLE (DEGREES)																	**	
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
31.5		92	90	89	85	86	87	89	90	89	90	88	87	83	87	89	91	90	91	
63		88	85	84	77	78	82	85	85	86	86	84	80	79	81	83	85	84	85	
125		78	78	76	68	70	77	80	80	77	78	75	72	71	73	72	76	77	75	
250		69	69	69	65	60	70	70	74	71	73	65	65	61	64	63	66	69	69	
500		66	66	65	65	53	61	63	67	71	69	64	58	60	64	66	70	65	67	
1000		65	64	63	61	47	56	61	63	66	66	62	56	57	60	62	65	64	65	
2000		65	64	63	58	45	54	59	62	63	63	59	54	53	56	58	61	59	61	
4000		62	61	59	53	44	49	54	56	56	57	54	49	47	50	52	56	54	55	
8000		54	52	52	49	48	50	49	53	49	54	49	49	48	49	49	53	50	53	
OVERALL		94	91	90	86	87	88	91	92	91	92	90	88	85	88	90	92	91	92	

NO DATA COLLECTED.

** NO DATA COLLECTED.

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APPENDIX F
Far-Field Noise on the
J85-5 Engine

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TABLE 8.1

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS
J85-5 ENGINE IN THE A/F32T-9 NOISE SUPPRESSOR SYSTEM
McCONNELL AFB, KANSAS

Date of Test: 12 March 1986

Time of Test: 1400

Engine Operation

Idle	49.0 %RPM
Military Power	100 %RPM
Afterburner Power	100 %RPM

Meteorology

Temperature	12 Deg C
Bar Pressure	0.712 M Hg
Rel Humidity	90 %
Wind - Speed	8 - 14 Knots (Gusts to 17)
- Direction	290 Deg (True)

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
8.2																	OMEGA 1.5	
DISTANCE = 100 METERS																	TEST DP-OT9-600	
NOISE SOURCE/SUBJECT:																	RUN 05	
(J85-5(GP) ENGINE																		
(IN THE A/F32T-9 NSS																	12 C	
(MCCONNELL AFB, KANSAS																	BAR PRESS = 0.712 M HG	
(FAR FIELD NOISE																	REL HUMID = 90 %	
(NSS MCCONNELL AFB																	PAGE 2	
FREQ	ANGLE (DEGREES)																	
(HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
3.15	76	81	80	79	63	70	78	79	82	77	72	80	79	80	80	77	75	76
4	88	87	89	87	68	74	77	80	80	74	72	77	78	77	80	75	73	75
5	81	84	83	80	62	70	77	79	81	78	71	80	76	79	79	77	73	76
6.3	74	77	83	79	62	69	76	77	81	75	70	79	75	78	78	77	70	73
8	72	76	80	78	55	65	74	73	81	74	69	75	74	76	79	76	71	72
10	73	75	78	78	58	67	69	73	80	71	65	74	76	79	77	72	67	72
12.5	74	75	79	80	61	64	68	73	78	70	66	71	75	78	77	70	66	69
16	73	75	78	78	54	62	67	72	76	69	64	69	71	75	75	70	65	68
20	76	77	78	78	57	59	67	70	73	67	63	67	68	72	71	67	65	69
25	76	76	78	78	56	58	64	66	71	66	62	68	67	71	68	65	63	64
31.5	74	75	76	76	60	59	64	66	73	67	63	68	67	70	68	66	63	64
40	72	74	74	76	65	58	63	66	70	67	61	71	66	68	67	65	64	66
50	69	71	72	75	66	58	65	66	69	67	60	77	67	69	69	65	64	67
63	68	67	69	74	70	64	58	64	65	63	62	78	64	66	67	64	68	67
80	65	64	66	77	76	59	59	63	64	62	62	80	63	64	64	64	69	63
100	65	63	67	78	73	58	58	65	64	66	62	81	59	62	62	64	74	67
125	63	64	66	77	65	58	57	65	64	65	65	81	57	59	61	63	69	65
160	62	61	64	75	64	55	63	70	67	67	61	79	54	55	60	59	64	62
200	61	60	62	74	57	56	52	66	63	63	58	78	51	53	60	58	63	59
250	58	57	59	76	56	50	60	66	61	59	55	80	50	54	61	59	65	58
315	59	57	60	79	51	51	54	64	60	57	56	81	54	56	61	61	66	61
400	58	58	60	78	47	51	61	66	63	60	58	81	57	60	63	64	66	64
500	55	57	57	79	44	48	57	66	66	55	60	78	56	60	63	63	66	57
630	55	55	57	79	42	47	58	67	72	57	62	76	57	59	62	62	66	58
800	55	55	56	76	41	48	56	68	74	59	63	75	58	59	62	62	64	56
1000	55	54	55	74	39	46	54	68	72	57	62	72	58	58	61	61	63	56
1250	53	52	54	72	36	46	51	64	70	57	64	70	59	61	66	64	62	56
1600	53	51	54	68	34	43	48	61	68	56	62	68	59	60	64	62	60	53
2000	51	48	52	63	34	40	46	54	64	55	60	64	59	60	61	60	59	51
2500	48	46	48	58	34	39	45	50	59	54	60	61	59	60	62	61	60	52
3150	46	46	46	51	32	38	44	46	53	53	59	56	58	59	60	59	58	50
4000	44	44	44	47	30	37	44	45	48	51	55	50	56	56	57	57	57	50
5000	41	40	41	45	29	35	43	43	45	49	51	44	51	51	51	51	52	46
6300			41	41	29	34	41	42	43	44	44	40	44	44	44	45	46	43
8000			40	40	30	34	41	41	43	42	37	38	39	40	39	41	42	43
10000					30	34	38	39	42	41	34	38	35	37	35	39	37	40
OVERALL	90	91	92	93	80	79	84	87	90	84	80	92	86	88	88	85	83	83

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
DISTANCE = 100 METERS																		
NOISE SOURCE/SUBJECT:																		
(J85-5(GP) ENGINE)																		
(IN THE A/F321-9 NSS)																		
(MCCONNELL AFB, KANSAS)																		
(FAR FIELD NOISE)																		
(NSS MCCONNELL AFB)																		
(OPERATION:)																		
(MILITARY PWR (99% RPM))																		
(SINGLE ENGINE GROUND)																		
(RUNUP IN THE A/F321-9)																		
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TABLE SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:									
1/3 OCTAVE BAND																			
DISTANCE : 100 METERS																			
8.3										OMEGA 1.5									
NOISE SOURCE/SUBJECT:										TEST DP-079-600									
J85-5(GP) ENGINE										RUN 01									
IN THE A/F32T-9 MSS										15 C									
MCCONNELL AFB, KANSAS										BAR PRESS = 0.760 M HG									
FAR FIELD NOISE										REL HUMID = 70 %									
OPERATION:										METEOROLOGY:									
(FLIGHT IDLE (49X RPM)																			
(SINGLE ENGINE GROUND																			
(RUNUP IN THE A/F32T-9																			
(NSS MCCONNELL AFB																			
FREQ										ANGLE (DEGREE)									
(HZ)										°									
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																			
3.15	68	67	70	63	63	72	69	71	70	69	66	70	72	65	71	64	64	64	64
4	68	71	70	66	69	70	71	71	71	68	66	71	72	69	69	68	68	68	68
5	65	66	67	66	63	63	69	67	72	66	64	67	68	65	66	64	64	64	64
6.3	63	66	66	64	60	63	68	70	67	68	65	62	67	66	65	64	64	64	62
8	64	66	65	61	56	59	68	66	67	62	60	63	63	64	64	64	64	64	63
10	59	62	62	59	57	58	63	64	65	66	60	61	59	60	62	61	61	61	61
12.5	57	62	61	58	55	57	63	61	63	65	60	58	61	60	58	58	59	60	60
16	56	58	63	60	55	56	63	61	63	61	60	56	59	59	59	60	59	60	59
20	62	61	63	61	57	56	61	59	62	60	59	57	59	58	57	59	59	58	58
25	59	58	60	60	58	57	61	58	62	62	60	60	59	59	59	58	60	60	60
31.5	61	60	60	61	58	55	62	58	62	62	60	59	63	59	57	57	58	60	60
40	61	60	62	60	59	54	61	54	61	60	59	61	58	59	57	59	59	60	60
50	63	62	66	61	60	56	60	55	62	61	58	60	66	66	64	64	64	64	64
63	64	61	62	62	59	56	59	55	59	62	57	57	63	57	59	58	53	63	63
80	63	63	63	63	66	52	55	55	59	61	57	54	61	63	58	57	53	64	64
100	65	64	67	65	64	52	53	55	54	58	58	52	58	60	59	52	61	61	61
125	70	70	71	70	58	51	52	54	53	58	56	59	54	60	56	49	55	60	60
160	72	73	72	74	54	50	52	59	51	58	57	55	50	55	55	47	50	56	56
200	72	72	69	73	50	48	49	57	49	58	52	51	46	49	51	45	48	50	50
250	67	67	65	73	46	43	45	52	45	56	48	48	45	47	50	44	45	45	45
315	63	62	64	68	47	45	44	53	46	53	46	45	47	45	46	47	45	44	44
400	64	61	63	67	47	46	46	56	48	50	43	43	49	47	46	47	47	45	45
500	60	58	57	60	46	44	44	55	47	47	39	40	47	46	45	45	44	43	43
630	63	62	60	66	46	44	45	55	50	45	40	39	48	47	47	49	46	47	47
800	61	61	61	66	45	42	43	54	48	43	40	39	48	47	49	46	47	47	47
1000	62	63	64	67	43	42	42	52	48	40	40	39	45	47	49	46	45	44	44
1250	62	62	64	64	41	42	43	49	48	40	38	37	44	47	50	43	42	43	43
1600	60	59	60	61	41	40	41	47	46	39	40	37	44	46	50	46	42	42	42
2000	59	60	60	62	39	37	47	45	44	38	41	37	42	44	50	42	40	40	40
2500	58	61	61	62	38	36	42	43	43	37	38	36	42	43	49	41	40	39	39
3150	59	62	62	63	38	37	37	42	43	37	35	34	40	42	45	40	39	37	37
4000	61	63	62	65	38	39	49	45	46	40	36	36	39	40	43	39	38	37	37
5000	60	63	62	67	35	36	45	42	43	42	37	37	37	38	42	38	37	37	37
6300	58	61	60	67	34	34	33	38	39	33	31	35	37	38	34	34	33	33	33
8000	60	62	62	68	35	35	37	39	38	32	31	36	36	37	37	37	32	32	32
10000	54	56	56	63	35	34	34	37	33	33	32	37	37	37	37	32	32	32	32
OVERALL	80	81	81	82	74	73	78	77	78	79	75	73	77	75	76	74	75	75	75

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:									
8.3		1/3 OCTAVE BAND																			
		DISTANCE : 100 METERS																			
NOISE SOURCE/SUBJECT:		OPERATION:										METEOROLOGY:									
JOS-5(GP) ENGINE		MILITARY PWR (99% RPM)										TEMP : 15 C									
IN THE A/F32T-9 NSS		SINGLE ENGINE GROUND										BAR PRESS : 0.760 M HG									
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9										REL HUMID : 70 %									
FAR FIELD NOISE		NSS MCCONNELL AFB										PAGE 3									
FREQ (HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180		
3.15	67	65	64	70	63	70	71	69	68	75	71	66	72	70	74	73	66	68			
4	71	72	69	74	71	71	74	72	70	74	71	71	74	73	76	76	72	70			
5	66	66	65	69	69	71	73	69	70	73	67	69	68	70	72	73	69	67			
6.3	75	74	75	70	66	72	73	74	72	75	65	67	71	70	71	74	72	71			
8	78	80	77	74	69	69	75	76	74	75	71	69	70	72	72	79	76	76			
10	77	78	79	77	74	71	72	74	72	76	74	71	69	71	71	75	71	71			
12.5	73	72	73	72	74	73	73	72	71	75	70	72	72	71	73	75	72	73			
16	74	73	70	70	73	76	75	74	72	76	72	74	76	77	77	76	75	76			
20	77	73	73	71	75	73	73	73	75	75	75	71	72	74	74	70	75	76			
25	84	82	81	77	75	74	74	77	75	76	76	74	73	73	76	70	73	76			
31.5	86	83	78	74	71	71	72	75	73	75	75	71	69	71	69	70	74	71			
40	83	84	78	74	66	68	73	74	72	70	74	71	68	68	67	71	68	67			
50	81	79	76	74	64	68	73	73	73	71	70	70	69	69	68	66	68	69			
63	81	77	76	70	65	70	71	70	74	66	70	65	63	64	67	69	65	66			
80	74	72	72	68	61	68	65	68	67	64	63	62	57	61	61	62	62	61			
100	71	69	70	68	59	60	64	62	66	61	58	57	55	59	58	58	61	61			
125	74	72	70	71	57	61	65	61	66	59	58	55	53	54	56	57	60	63			
160	73	71	70	73	56	59	60	60	62	55	54	52	49	52	54	53	57	57			
200	71	70	68	72	53	57	60	58	59	55	52	50	47	50	51	52	54	54			
250	67	67	66	71	50	57	57	55	59	56	51	48	48	49	49	53	51	50			
315	67	67	67	70	52	57	57	58	61	58	57	51	51	52	52	60	58	52			
400	68	68	68	69	52	59	62	63	67	58	60	54	55	56	55	64	61	56			
500	68	65	68	65	52	60	62	67	68	61	62	54	54	56	55	63	62	59			
630	71	68	69	68	51	56	61	64	64	58	58	50	53	54	55	63	65	61			
800	70	68	69	67	49	55	63	62	58	57	50	52	53	53	64	66	60				
1000	68	69	69	68	46	54	58	61	62	59	57	50	50	52	53	63	65	59			
1250	67	67	67	65	44	52	57	60	61	59	57	49	48	51	52	64	66	55			
1600	66	64	65	63	44	51	54	57	58	54	51	46	46	49	50	63	65	53			
2000	65	65	64	63	44	51	56	58	59	57	54	51	47	48	49	61	64	53			
2500	65	64	64	62	41	50	56	57	59	55	53	53	45	47	48	60	62	52			
3150	64	65	64	63	41	47	54	55	56	50	50	43	45	45	45	58	60	50			
4000	63	64	64	64	38	45	51	51	51	47	45	42	41	43	43	54	57	47			
5000	63	65	64	66	35	42	48	48	48	44	43	39	39	41	41	49	52	43			
6300	61	62	63	65	33	39	44	44	45	41	40	34	37	38	38	43	45	39			
8000	61	63	64	67	33	38	42	41	43	39	38	33	36	37	37	39	40	37			
10000	55	57	58	62	33	38	39	39	39	38	37	33	37	37	37	37	37	37			
OVERALL	92	90	89	87	83	84	85	85	85	86	84	82	83	83	85	86	84	84			

NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
8.3		1/3 OCTAVE BAND																	OMEGA 1.5	
		DISTANCE = 100 METERS																	TEST DP-019-600	
NOISE SOURCE/SUBJECT:		OPERATION:																	RUN 04	
J85-5(OP) ENGINE		AFTERBURNER PWR(100X RPM)																	TEMP = 15 C	
IN THE A/F32T-9 NSS		SINGLE ENGINE GROUND																	BAR PRESS = 0.760 M HG	
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																	REL HUMID = 70 %	
FAR FIELD NOISE		NSS MCCONNELL AFB																	PAGE 3	
FREQ (HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
3.15	70	73	74	77	70	67	69	78	74	75	70	67	80	79	80	74	69	72		
4	75	74	77	76	72	72	69	75	74	74	72	71	79	77	79	79	71	73		
5	74	72	74	73	70	72	69	76	72	73	71	68	76	78	77	74	69	72		
6.3	75	75	77	75	67	72	73	76	75	73	68	70	78	78	76	80	77	76		
8	82	83	81	78	67	72	73	77	74	73	73	71	77	79	80	83	79	81		
10	85	84	84	81	65	79	72	76	74	72	77	74	76	80	77	82	80	77		
12.5	78	76	80	78	66	76	72	73	72	73	76	76	77	78	80	80	81	79		
16	78	77	74	75	64	79	74	75	72	71	79	82	79	82	82	79	80	82		
20	79	77	76	74	64	79	75	74	76	74	77	76	78	79	78	75	79	79		
25	87	84	82	78	65	79	76	77	75	77	82	79	77	79	79	75	78	80		
31.5	90	87	82	76	66	77	74	73	74	75	80	76	76	77	74	80	78	78		
40	87	87	84	78	66	73	73	74	71	77	80	74	73	76	74	79	72	73		
50	87	83	84	84	77	74	74	79	77	71	75	75	74	78	75	73	76	77		
63	88	82	81	81	72	76	73	75	78	69	75	73	72	74	74	76	73	74		
80	79	79	79	77	67	67	70	76	71	66	72	70	65	71	67	71	69	69		
100	74	77	78	74	68	64	73	72	69	66	65	65	62	70	63	65	66	66		
125	76	78	77	75	65	67	74	69	68	64	64	64	59	72	66	63	65	65		
160	75	74	75	72	70	63	74	67	65	62	66	62	54	75	68	61	60	61		
200	71	72	75	71	67	63	73	65	65	63	66	59	54	77	69	61	58	60		
250	66	68	71	69	65	64	71	65	67	65	67	56	57	75	64	61	55	56		
315	67	70	72	68	68	64	72	65	67	66	67	59	60	72	59	63	57	57		
400	67	70	72	69	64	65	71	68	71	68	68	62	63	67	61	64	58	60		
500	70	71	73	69	65	66	72	72	74	67	69	63	60	68	62	64	61	62		
630	68	70	71	67	66	62	74	68	72	66	68	64	59	67	61	62	62	62		
800	68	71	71	66	64	61	77	66	70	65	69	58	58	65	61	62	63	60		
1000	69	71	72	66	63	59	79	65	68	64	67	58	58	64	62	63	61	60		
1250	67	79	81	64	60	57	75	64	67	63	66	57	61	67	68	67	64	63		
1600	65	76	77	62	57	52	73	60	64	60	63	52	58	64	64	64	62	60		
2000	65	75	79	62	56	57	71	67	63	61	60	55	56	62	62	62	60	58		
2500	65	75	82	60	53	52	67	61	61	58	58	55	57	63	64	63	62	59		
3150	62	73	78	59	48	47	61	57	59	55	54	54	54	61	60	60	59	56		
4000	59	71	77	56	44	43	54	53	54	50	49	47	51	57	57	57	56	53		
5000	57	67	72	56	40	41	48	51	52	49	47	45	48	52	51	51	50	48		
6300	55	60	64	55		38	45	48	49	46	44	43	44	46	44	44	44	43		
8000	52	54	58	58		37	44	46	49	45	43	42	41	44	42	43	42	42		
10000			49	52	37	37	43	44	45	45	43	42	42	38	43	42	42	42		
OVERALL	96	94	94	91	83	88	88	88	87	86	89	87	89	91	90	91	89	89		

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (NFR 161-35, APRIL 82)																
8.4 DISTANCE : 100 METERS																
IDENTIFICATION:																
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:)																
J85-510P) ENGINE (BACKGROUND NOISE) TEMP : 15 C																
IN THE A/F327-9 NSS (SINGLE ENGINE GROUND) BAR PRESS : 0.760 M HG																
MCCONNELL AFB, KANSAS (RUNUP IN THE A/F327-9) REL HUMID : 70 %																
FAR FIELD NOISE (NSS MCCONNELL AFB)) PAGE 4																
HAZARD/PROTECTION																
C-WEIGHTED OVERALL SOUND LEVEL (DASLC IN DBC) AT EAR																
A-WEIGHTED OVERALL SOUND LEVEL (DASLA IN DBA) AT EAR																
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (NFR 161-35, TABLE 5, APRIL 82)																
NO PROTECTION																
DASLC 79 80 81 89 79 69 73 79 82 76 75 90 75 78 76 80 76																
DASLA 64 64 66 84 60 57 64 74 79 67 72 83 69 70 73 72 73 67																
T 1440 1440 1440 480 1440 1440 1440 1440 1142 1440 1440 571 1440 1440 1440 1440 1440 1440																
COMMUNICATION																
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
PSIL 56 56 57 72 42 48 56 64 69 60 65 72 62 64 67 66 59																
ANNOYANCE																
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																
TONE CORRECTION (C IN DB)																
PNLT 76 76 78 94 75 70 78 85 88 81 84 95 82 83 87 85 87 81																
C 0 0 0 0 0 1 1 1 1 1 1 0 0 0 1 1 1 1																
** NO DATA COLLECTED.																

TABLE		MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:	
8.4		DISTANCE = 100 METERS																	OMEGA 1.5	
NOISE SOURCE/SUBJECT:		(OPERATION:																	TEST DP-019-600	
JBS-5(GP) ENGINE		(FLIGHT IDLE(49X RPM)																	RUN 01	
IN THE A/F32T-9 NSS		(SINGLE ENGINE GROUND)																	TEMP = 15 C	
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9																	BAR PRESS = 0.760 M HG	
FAR FIELD NOISE		(NSS MCCONNELL AFB)																	REL HUMID = 70 X	
																			PAGE 4	
		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
		ANGLE (DEGREES)																		
HAZARD/PROTECTION																				
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																				
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																				
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																				
NO PROTECTION																				
OASLC		79	79	79	79	81	70	63	67	68	68	70	67	67	70	68	69	65	65	70
OASLA		73	73	74	77	55	52	56	61	57	56	52	52	56	57	59	56	54	55	55
T		1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
COMMUNICATION																				
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																				
PSIL		66	66	66	66	69	46	45	49	54	51	47	44	43	49	49	52	49	47	47
ANNOYANCE																				
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																				
TONE CORRECTION (C IN DB)																				
PNLT		88	89	89	92	69	65	74	74	72	71	67	67	67	69	70	73	69	67	68
C		1	1	1	1	0	0	3	1	1	2	1	1	1	0	0	0	1	1	0

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																
8.4 DISTANCE = 100 METERS																
IDENTIFICATION:																
)																
) OMEGA 1.5																
) TEST DP-019-600																
) RUN 03																
) 03 MAR 87																
) REL HUMID = 70 X																
) PAGE 4																
)																
)																
) METEOROLOGY:																
) TEMP = 15 C																
) BAR PRESS = 0.760 M HG																
) 03 MAR 87																
) REL HUMID = 70 X																
) PAGE 4																
)																
)																
) ANGLE (DEGREES)																
) 0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
)																
) HAZARD/PROTECTION																
) C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DB) AT EAR																
) A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DB) AT EAR																
) LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																
) NO PROTECTION																
) OASLC 89 87 85 83 76 78 79 80 81 79 79 77 76 76 77 78 79 78																
) OASLA 78 77 78 77 58 64 68 71 72 67 66 61 60 61 62 72 74 67																
) T 1358 1440 1358 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																
)																
) COMMUNICATION																
) PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
) PSIL 71 71 71 71 70 50 57 61 64 65 60 59 55 53 54 55 65 67 59																
)																
) ANNOYANCE																
) PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PHDB)																
) TONE CORRECTION (C IN DB)																
) PNLT 92 92 92 92 70 77 82 83 85 79 78 77 72 74 74 84 85 78																
) C 1 1 1 1 0 0 1 1 1 0 0 1 0 0 0 0 0 1																
)																
) ** NO DATA COLLECTED																
)																

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																			
IDENTIFICATION:																			
OMEGA 1.5																			
TEST DP-019-600																			
RUN 04																			
03 MAR 87																			
PAGE 4																			
NOISE SOURCE/SUBJECT:																			
(OPERATION:) METEOROLOGY:																			
(AFTERBURNER PWR(100X RPM)) TEMP = 15 C																			
(SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG																			
(RUNUP IN THE A/F32T-9) REL HUMID = 70 X																			
(NSS MCCONNELL AFB)																			
FAR FIELD NOISE																			
ANGLE (DEGREES)																			
0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC	93	92	92	87	80	83	87	84	84	81	85	82	81	86	89	84		83	83
OASLA	77	85	89	75	71	70	84	75	78	73	75	69	69	76	74	74		72	70
T	1440	404	202	1440	1440	1440	480	1440	1358	1440	1440	1440	1440	1440	1440	1440		1440	1440
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL	70	78	81	68	62	60	74	68	70	65	67	61	62	68	66	67		65	64
ANNoyANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT	92	100	105	90	83	83	94	91	89	85	86	82	81	90	89	88		85	85
C	0	2	2	1	1	2	0	2	0	0	0	1	0	0	2	1		0	1
NO DATA COLLECTED.																			

TABLE		SOUND PRESSURE LEVEL (DB)																		IDENTIFICATION:	
8.5		OCTAVE BAND																			
		DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT:		OPERATION:																		METEOROLOGY:	
J85-5(OP) ENGINE		BACKGROUND NOISE																		TEMP = 15 C	
IN THE A/F32T-9 MSS		SINGLE ENGINE GROUND																		BAR PRESS = 0.760 M HG	
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																		REL HUMID = 70 %	
FAR FIELD NOISE		MSS MCCONNELL AFB																		PAGE 5	
FREQ		ANGLE (DEGREES)																			
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
4		89	90	90	89	70	77	82	84	86	81	77	84	83	83	84	82		79	81	
8		78	81	86	83	64	72	78	80	86	78	73	81	80	83	83	81		74	78	
16		80	81	83	83	63	67	72	77	81	74	70	74	78	81	80	74		70	74	
31.5		79	80	81	82	67	63	69	71	76	72	67	74	72	75	73	70		68	70	
63		73	73	75	80	77	66	66	70	71	69	66	83	70	72	72	70		72	71	
125		68	68	71	82	74	62	65	72	70	71	68	85	62	64	66	67		76	70	
250		65	63	65	82	60	58	62	71	66	66	62	85	57	60	66	65		70	65	
500		62	62	63	83	50	54	64	71	73	63	65	83	61	65	68	68		71	66	
1000		59	59	60	79	44	51	59	72	77	63	68	78	63	65	69	67		68	61	
2000		56	54	57	70	39	46	51	62	70	60	66	71	64	65	68	66		65	57	
4000		49	48	49	53	35	42	48	49	55	56	61	57	61	61	62	61		61	54	
8000					43	34	39	45	45	47	47	45	43	46	46	45	46		48	47	
OVERALL		90	91	93	93	80	79	84	87	90	84	80	92	86	88	88	85		83	84	

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																		
OCTAVE BAND																				
8.5		OMEGA 1.5																		
DISTANCE = 100 METERS		TEST DP-019-600																		
NOISE SOURCE/SUBJECT:		OPERATION:				METEOROLOGY:														
J85-5(GP) ENGINE		FLIGHT IDLE(49X RPM)				TEMP = 15 C														
IN THE A/F32T-9 NSS		SINGLE ENGINE GROUND				BAR PRESS = 0.760 M HG														
MCCONNELL AFB,KANSAS		RUNUP IN THE A/F32T-9				REL HUMID = 70 X														
FAR FIELD NOISE		NSS MCCONNELL AFB				PAGE 5														
FREQ		ANGLE (DEGREES)																		
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
4		72	74	74	72	70	72	76	74	75	76	73	70	74	76	72	74	70	71	
8		67	70	69	66	63	65	72	72	71	72	68	65	69	68	68	68	68	67	
16		64	65	67	65	60	61	67	65	67	68	64	62	64	64	63	63	64	64	
31.5		65	64	66	63	63	60	66	62	67	66	65	64	67	63	63	63	63	65	
63		68	67	69	67	67	60	63	60	65	66	62	62	69	65	67	61	59	67	
125		75	75	75	76	65	56	57	61	58	63	62	61	60	64	62	55	58	64	
250		73	73	71	77	53	51	51	59	51	61	54	53	51	52	54	50	51	52	
500		67	65	66	70	51	49	50	60	53	53	46	46	53	52	51	52	50	50	
1000		66	66	68	70	48	47	47	57	53	46	44	43	51	52	54	51	49	50	
2000		64	65	65	67	44	43	49	50	49	43	45	41	48	49	55	48	45	45	
4000		64	67	67	70	42	42	50	48	49	45	41	41	43	45	48	44	43	42	
8000		63	65	65	71	39	39	40	43	42	37	36	41	41	41	42	38	38	37	
OVERALL		80	81	81	82	74	73	78	77	78	79	75	73	77	77	75	76	74	75	

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:	
8.5		OCTAVE BAND																	OMEGA 1.5	
		DISTANCE = 100 METERS																	TEST DP-019-600	
NOISE SOURCE/SUBJECT:		(OPERATION:																	RUN 03	
J85-5(GP) ENGINE		(MILITARY PWR (99% RPM)																	TEMP = 15 C	
IN THE A/F32T-9 NSS		(SINGLE ENGINE GROUND																	BAR PRESS = 0.760 M HG	
MCCONNELL AFB-KANSAS		(RUNUP IN THE A/F32T-9																	REL HUMID = 70 %	
FAR FIELD NOISE		(NSS MCCONNELL AFB																	PAGE 5	
FREQ		ANGLE (DEGREES)																	**	
(HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
4	73	73	71	75	73	76	78	75	74	79	75	74	77	76	79	79	79	74	73	
8	82	82	82	79	76	76	78	80	78	80	76	74	75	76	76	81	81	78	78	
16	80	77	77	76	79	79	78	78	78	80	78	78	79	80	80	79	79	79	80	
31.5	89	88	84	80	77	77	78	80	78	79	80	77	75	76	77	75	77	77	77	
63	85	82	81	76	68	74	76	76	77	73	73	72	70	71	71	71	71	71	71	
125	78	76	75	76	62	65	68	66	70	63	62	60	57	61	61	61	61	65	66	
250	73	73	72	76	57	62	63	62	65	61	59	54	54	55	56	61	60	60	57	
500	74	72	73	72	56	63	66	70	71	64	65	58	59	60	60	68	68	64	64	
1000	73	73	73	72	52	59	63	66	67	63	62	54	55	57	58	69	70	64	64	
2000	70	69	69	68	48	56	60	62	64	60	58	56	51	53	54	66	68	58	58	
4000	68	69	69	69	43	50	56	57	58	53	52	51	46	48	48	59	62	52	52	
8000	65	67	67	70	38	43	47	46	47	44	43	38	41	42	42	45	47	43	43	
OVERALL	92	90	89	87	83	84	85	85	85	86	84	82	83	83	85	86	84	84	84	

** NO DATA COLLECTED.

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APPENDIX G
Far-Field Noise on the
F101-GE-102 Engine

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TABLE 9.1

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS
F101-GE-102 ENGINE IN THE A/F32T-9 NOISE SUPPRESSOR SYSTEM
McCONNELL AFB, KANSAS

Date of Test: 20 March 1986

Time of Test: 0130 Hrs

Engine Operation

Idle	71 %RPM
Intermediate (Military Pwr)	100 %RPM
Augmented Thrust (Afterburner Power)	100 %RPM

Meteorology

Temperature	0 Deg C
Bar Pressure	0.734 M Hg
Rel Humidity	62 %
Wind - Speed	6 - 10 Knots
- Direction	20 Deg (True)

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
1/3 OCTAVE BAND																	OMEGA 1.5		
DISTANCE = 100 METERS																	TEST DP-079-700		
NOISE SOURCE/SUBJECT:																	RUN 05		
F101 ENGINE IN THE																	11 MAR 87		
A/F32T-9 NSS																	PAGE 2		
MCCONNELL AFB, KANSAS																			
FAR FIELD NOISE																			
OPERATION:																			
BACKGROUND NOISE																			
SINGLE ENGINE GROUND																			
RUNUP IN THE A/F32T-9																			
NSS MCCONNELL AFB																			
METEOROLOGY:																			
TEMP = 0 C																			
BAR PRESS = 0.734 M HG																			
REL HUMID = 62 %																			
ANGLE (DEGREES)																			
FREQ (HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
3.15					62	62	64	73	73	61	71	65	64	66	56	60		62	63
4					64	63	68	70	72	65	73	62	62	67	57	61		64	64
5					63	64	66	69	76	63	72	64	66	66	53	60		63	62
6.3					64	66	69	71	73	62	69	63	64	64	53	59		64	64
8					59	63	68	71	71	61	67	63	65	64	59	61		65	60
10					59	64	69	70	69	59	70	63	64	64	59	60		65	62
12.5					56	61	70	70	71	60	69	61	62	63	52	56		62	57
16					53	60	66	67	67	58	68	60	59	62	49	55		57	56
20					49	57	65	67	63	55	65	59	59	61	48	52		58	55
25					47	54	61	66	59	54	65	57	58	59	49	52		58	55
31.5					49	53	59	65	58	52	64	56	56	58	50	52		57	54
40					46	50	57	61	55	51	60	53	54	56	50	53		54	52
50					47	48	56	51	53	48	57	52	52	54	50	52		53	53
63					47	50	54	51	52	51	55	52	50	52	49	52		54	52
80					47	47	54	49	51	49	53	48	49	51	51	51		51	50
100					46	48	52	49	50	50	54	49	49	51	53	52		53	52
125					49	51	50	49	49	49	54	49	47	48	48	48		51	51
160					46	46	46	45	45	44	48	42	42	42	42	46		49	47
200					38	42	47	47	46	43	46	41	38	40	39	43		40	40
250					37	38	42	42	41	41	42	37	36	39	37	42		38	37
315					33	35	37	40	37	35	38	34	35	39	36	40		37	37
400					37	37	39	39	38	33	37	34	37	40	37	37		36	36
500					34	36	38	41	35	36	39	40	34	38	40	36		36	36
630					33	35	38	40	31	33	37	35	37	35	34	37		35	34
800					33	37	41	39	29	31	35	34	35	33	32	36		34	33
1000					30	33	37	37	31	30	32	33	30	30	31	30		31	30
1250					30	33	39	38	25	25	31	33	31	30	31	29		29	29
1600					27	31	34	35	23	23	28	30	30	29	28	28		28	27
2000					25	27	31	32	23	22	26	28	29	28	24	25		27	25
2500					24	26	29	30	22	22	26	28	29	29	23	23		26	24
3150					23	25	28	28	22	22	25	29	29	29	22	23		24	24
4000					22	23	25	26	23	22	25	30	30	30	23	23		23	24
5000					22	22	23	25	31	32	32	32	32	31	24	23		24	25
6300					22	21	22	23	32	33	32	32	32	33	24	24		24	26
8000					23	22	22	23	33	33	33	33	33	33	25	25		24	26
10000					24	23	23	23	34	34	34	34	34	34	26	26		26	27
OVERALL	70	66	65	67	71	73	77	80	81	71	80	72	73	74	66	69		73	71

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE	MEASURED SOUND PRESSURE LEVEL (DB)	IDENTIFICATION:
9.2	1/3 OCTAVE BAND	
	DISTANCE = 100 METERS	OMEGA 1.5
		TEST DP-019-700
		RUN 01
NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
F101 ENGINE IN THE	IDLE POWER	TEMP
A/F32T-9 NSS	SINGLE ENGINE GROUND	BAR PRESS = 0.734 M HG
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9	REL HUMID = 62 %
FAR FIELD NOISE	NSS MCCONNELL AFB	
		PAGE 2
FREQ	ANGLE (DEGREES)	
(HZ)	0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180	
3.15	61 75 62 75 69 63 67 82 78 70 75 74	77 79
4	62 72 62 77 66 65 67 81 77 72 74 73	78 76
5	58 71 63 74 69 64 68 82 78 74 74 69	76 73
6.3	60 69 60 73 67 63 67 80 77 69 74 69	76 75
8	61 72 63 70 68 62 65 79 73 66 71 66	74 74
10	61 72 61 70 69 63 69 79 72 64 71 65	76 72
12.5	58 70 60 69 65 63 66 78 69 63 67 65	75 71
16	56 68 59 67 63 62 66 77 68 63 68 63	72 70
20	54 65 56 64 61 60 63 75 66 59 65 61	69 68
25	53 64 54 66 57 58 61 74 64 59 64 61	68 65
31.5	52 60 52 62 57 56 61 71 63 58 63 59	67 64
40	56 54 55 48 56 50 59 54 53 59 60 56	59 57
50	54 47 52 51 55 50 52 53 69 56 50 55	53 53
63	55 52 53 54 46 50 50 55 49 53 54 66	55 49
80	53 53 51 52 42 48 48 52 49 49 50 63	52 48
100	56 56 54 54 43 46 46 49 47 51 50 59	50 50
125	54 57 57 61 47 51 47 49 48 49 49 57	48 49
160	50 50 48 48 40 41 41 44 42 42 42 45	42 42
200	50 50 49 40 39 40 40 39 45 42 42 43	40 41
250	51 51 45 48 37 38 42 42 43 37 37 41	37 37
315	43 40 41 36 39 41 40 40 42 38 38 39	39 39
400	44 39 43 40 36 41 40 42 38 38 38 39	41 38
500	46 48 56 43 31 33 37 37 39 38 36 37	40 36
630	48 44 52 43 30 31 38 38 44 39 41 35	38 36
800	40 38 42 42 26 27 31 32 34 33 33 33	33 33
1000	41 38 40 43 25 25 30 31 31 32 32 31	29 30
1250	36 35 35 39 23 23 29 30 30 30 29 30	27 28
1600	37 35 34 35 22 23 30 31 35 32 31 30	27 29
2000	50 45 43 37 27 28 41 41 48 42 41 37	33 34
2500	37 35 34 31 21 23 29 31 32 31 30 31	27 28
3150	40 38 36 30 22 24 33 35 32 33 32 30	29 30
4000	43 40 38 31 23 25 33 35 31 32 31 29	30 31
5000	35 33 31 28 23 24 27 33 25 32 32 31	30 31
6300	35 33 31 28 24 25 27 33 25 33 33 31	32 32
8000	32 30 30 29 25 25 26 34 26 34 34 33	33 33
10000	67 67 66 66 69 81 71 82 77 73 77 89	84 85

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE MEASURED SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:									
1/3 OCTAVE BAND																			
DISTANCE : 100 METERS										OMEGA 1.5									
										TEST DP-019-700									
NOISE SOURCE/SUBJECT:										RUN 02									
(F101 ENGINE IN THE																			
(A/F32T-9 NSS										0 C									
(MCCONNELL AFB, KANSAS										BAR PRESS 0.734 M HG									
(FAR FIELD NOISE										REL HUMID 62 X									
										PAGE 2									
FREQ	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
(HZ)																			
3.15					69	71	71	69	72	71	71	73	69	74	76	75		77	73
4					74	75	74	76	75	78	77	80	76	77	77	77		77	75
5					74	75	78	79	74	78	74	77	74	78	76	76		79	79
6.3					74	77	78	77	80	79	76	80	81	81	84	84		83	82
8					82	83	84	84	86	88	83	84	84	84	84	90		85	86
10					85	85	86	84	86	89	86	86	86	87	86	89		87	89
12.5					86	88	88	91	89	92	89	90	91	90	91	94		93	92
16					88	89	92	92	89	94	91	91	87	95	94	94		91	94
20					84	86	87	88	89	90	87	89	87	88	87	84		92	90
25	88	83	84	84	83	85	87	85	87	89	86	86	82	86	89	84		87	89
31.5	86	83	81	82	81	84	87	85	87	87	87	83	81	85	86	92		90	89
40	85	87	82	79	80	83	85	85	85	84	84	81	79	81	85	91		87	89
50	82	78	80	76	76	78	82	82	83	80	80	77	79	81	85	85		86	88
63	84	82	81	74	73	77	81	81	82	83	80	76	77	77	80	84		84	86
80	80	80	76	73	70	76	80	81	80	82	79	74	74	74	77	79		81	82
100	77	79	78	72	67	75	78	77	78	77	75	71	73	73	75	77		80	80
125	75	77	75	70	63	73	75	75	75	77	73	68	68	70	71	74		79	78
160	74	75	73	68	59	71	71	71	73	74	70	64	65	68	70	72		77	78
200	70	76	72	62	59	71	67	68	70	71	66	62	63	64	67	67		76	76
250	66	70	66	58	56	67	63	64	68	68	62	60	60	62	61	64		69	70
315	64	64	61	53	49	61	59	61	65	65	60	57	59	63	61	68		64	65
400	60	58	60	53	45	56	57	57	62	65	60	55	61	66	65	73		63	67
500	57	56	59	50	43	53	55	56	60	64	60	54	62	65	67	73		59	64
630	54	56	58	48	41	52	56	55	56	63	60	53	58	63	65	70		61	65
800	54	55	57	47	40	50	55	56	56	62	60	52	56	60	63	66		64	66
1000	53	56	54	47	39	49	54	55	56	60	59	52	56	61	61	64		64	64
1250	52	54	51	45	39	48	53	54	55	59	58	52	54	59	60	64		63	61
1600	53	55	51	45	39	49	51	53	55	60	56	51	54	57	59	62		61	58
2000	54	55	52	44	38	48	50	52	54	58	54	50	52	55	57	61		58	57
2500	53	53	51	43	38	46	49	50	52	56	53	49	50	54	55	59		56	55
3150	52	51	49	41	39	44	47	49	49	54	51	47	47	52	52	56		54	53
4000	50	50	48	40	40	43	45	46	46	51	48	44	45	48	49	53		52	51
5000	50	49	47	41	41	43	45	45	45	48	46	43	43	43	47	50		49	49
6300	51	50	48	41	42	43	45	44	44	46	45	43	43	43	47	47			
8000	47	45	45	42	43	43	44	44	44	44	44	44	44	44	44	44			
10000	45	45	44	43	44	44	44	44	44	44	44	44	44	44	47	48		48	48
OVERALL	93	92	90	88	94	95	97	97	97	99	97	97	95	98	98	101		99	100

NO BACKGROUND CORRECTION APPLIED.
 ** NO DATA COLLECTED.

TABLE	MEASURED SOUND PRESSURE LEVEL (DB)	IDENTIFICATION:
9.2	1/3 OCTAVE BAND	OMEGA 1.5
	DISTANCE = 100 METERS	TEST DP-OT9-700
		RUN 04
NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
F101 ENGINE IN THE	AFTERBURNER PWR(100X RPM)	TEMP = 0 C
A/F32T-9 NSS	SINGLE ENGINE GROUND	BAR PRESS = 0.734 M HG
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9	REL HUMID = 62 X
FAR FIELD NOISE	NSS MCCONNELL AFB	PAGE 2
FREQ	ANGLE (DEGREES)	**
(HZ)	0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180	
3.15	74 76 77 76 74 71 74 77 77 75 79 82 79 78 78 75 77 79	
4	87 89 88 87 79 75 78 79 80 81 82 85 82 79 82 82 81 82	
5	87 85 87 85 83 82 84 81 85 83 85 84 86 84 82 84 86 85 87	
6.3	89 89 90 88 85 84 82 86 86 86 82 84 88 88 86 91 92 91 90	
8	92 92 91 87 89 88 89 90 90 90 93 92 91 92 92 92 96 95 94	
10	92 93 92 89 92 91 90 92 95 96 93 94 95 92 93 98 96 95	
12.5	94 96 93 91 93 94 95 96 97 98 98 97 97 95 101 102 100 98	
16	96 94 94 94 97 98 100 100 99 102 98 99 98 103 103 104 99 104	
20	95 91 92 93 96 95 98 99 98 103 97 99 97 100 98 96 100 100	
25	96 92 93 93 95 97 98 98 98 101 99 98 93 98 102 99 100 101	
31.5	92 91 93 91 93 95 96 95 97 99 97 93 92 97 99 104 102 100	
40	93 93 92 87 89 92 95 93 95 94 94 90 91 93 98 101 98 100	
50	97 92 92 89 88 92 94 94 95 91 95 90 93 95 98 99 101 101	
63	95 89 89 83 83 90 93 91 93 95 91 88 91 91 94 99 98 98	
80	91 87 85 79 77 87 88 89 92 93 89 85 85 87 90 93 93 93	
100	89 87 85 77 76 85 86 85 87 87 86 80 82 84 84 88 89 88	
125	86 85 83 75 70 82 84 83 85 87 82 78 77 82 81 83 86 85	
160	85 84 82 70 67 82 82 80 83 83 81 76 79 78 79 82 83 83	
200	81 83 81 70 67 81 79 77 82 83 81 77 77 76 78 80 79 79	
250	83 83 80 71 66 78 75 75 80 82 78 78 79 77 77 82 79 81	
315	80 77 76 69 61 75 72 72 78 79 75 75 78 79 78 84 82 84	
400	78 72 71 65 57 71 70 69 71 73 75 79 71 77 80 82 84 86	
500	76 70 69 63 55 70 69 72 74 76 78 72 78 81 83 87 89 89	
630	74 68 67 60 53 70 68 69 71 73 75 79 71 77 80 82 84 86 85	
800	75 67 67 60 52 68 69 70 73 77 78 69 73 77 80 81 80 78	
1000	75 66 66 59 51 67 68 70 74 77 76 68 72 75 76 79 80 82	
1250	73 64 65 58 51 66 67 69 71 76 74 68 71 74 75 79 81 80	
1600	72 63 64 56 50 64 65 68 69 73 71 67 70 72 74 77 78 78	
2000	70 62 63 55 49 63 64 66 68 70 70 65 67 69 72 75 76 75	
2500	69 60 60 53 53 61 61 64 66 69 67 62 64 67 69 72 73 73	
3150	65 58 58 51 59 59 59 61 63 65 64 58 61 64 66 69 70 70	
4000	62 57 56 49 56 56 58 59 61 60 61 60 59 61 64 66 69 66 66	
5000	59 55 54 49 54 54 55 57 55 57 55 58 58 58 59 59 60 62 61	
6300	54 53 50 53 54 54 55 55 55 55 55 55 55 55 55 55 55 55 58	
8000	53 52 51 53 54 54 54 54 54 54 54 54 54 54 54 54 54 54 54	
10000	53 53 53 54 55 55 55 55 55 55 55 55 55 55 55 55 55 55 55	
OVERALL	105 103 103 101 103 104 106 106 107 109 106 106 105 108 109 111 110 110	

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:									
1/3 OCTAVE BAND		DISTANCE = 100 METERS																			
9.3												OMEGA 1.5									
												TEST DP-079-700									
NOISE SOURCE/SUBJECT:		(OPERATION:										METEOROLOGY:									
F101 ENGINE IN THE		(BACKGROUND NOISE										TEMP = 15 C									
A/F32T-9 NSS		(SINGLE ENGINE GROUND										BAR PRESS = 0.760 M HG									
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F32T-9										REL HUMID = 70 %									
FAR FIELD NOISE		(NBS MCCONNELL AFB										PAGE 3									
FREQ (HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180		
ANGLE (DEGREES)																					
3.15					62	62	64	73	73	61	71	65	64	66	56	60		62	63		
4					64	63	68	70	72	65	73	62	62	67	57	61		64	64		
5					63	64	66	69	76	63	72	64	66	66	53	60		63	62		
6.3					64	66	69	71	73	62	69	63	64	64	53	59		64	64		
8					59	63	68	71	71	61	67	63	65	64	59	61		65	60		
10					59	64	69	70	69	59	70	63	64	64	59	60		65	62		
12.5					56	61	70	70	71	60	69	61	62	63	52	56		62	57		
16					53	60	66	67	67	58	68	60	59	62	49	55		57	56		
20					49	57	65	67	63	55	65	59	59	61	48	52		58	55		
25	66	59	55	61	47	54	61	66	59	54	65	57	58	59	49	52		58	55		
31.5	63	59	56	59	49	53	59	65	58	52	64	56	56	58	50	52		57	54		
40	60	56	53	57	46	50	57	61	55	51	60	53	54	56	50	53		54	52		
50	58	56	52	57	47	48	56	51	53	48	57	52	52	54	50	52		53	53		
63	61	55	59	60	47	50	54	51	52	51	55	52	50	52	49	52		54	52		
80	56	54	52	54	47	47	54	49	51	49	53	48	49	51	51	51		51	50		
100	57	58	55	54	46	48	52	49	50	50	54	49	49	51	53	52		53	52		
125	55	50	53	51	49	51	50	49	49	49	54	49	47	48	48	48		51	51		
160	50	49	46	46	39	43	46	45	45	44	48	42	42	42	42	46		49	47		
200	48	48	53	51	38	42	47	47	46	43	46	41	38	40	39	43		40	40		
250	45	43	49	45	37	38	42	42	41	41	42	37	36	39	37	42		38	37		
315	38	38	41	40	33	35	37	40	37	35	38	34	35	39	36	40		37	37		
400	37	37	39	39	35	37	38	40	38	33	37	34	37	40	37	37		36	36		
500	34	36	38	41	35	36	39	39	40	34	38	36	38	40	36	37		36	36		
630	33	35	38	40	31	33	37	33	38	35	37	35	36	35	34	37		35	34		
800	34	37	41	39	29	31	35	32	36	34	35	33	33	33	32	36		34	33		
1000	30	33	37	37	26	27	32	30	33	33	33	31	31	31	30	32		31	30		
1250	30	33	39	38	26	25	31	30	31	33	33	31	30	31	29	31		30	29		
1600	27	31	35	36	24	24	29	29	30	31	32	30	30	31	28	29		28	28		
2000	26	28	32	33	24	23	27	29	30	32	31	29	29	29	25	26		28	26		
2500	26	28	31	32	24	24	27	30	31	33	31	30	30	30	24	24		27	26		
3150	25	27	30	30	24	24	27	31	32	33	31	31	31	31	24	25		26	26		
4000	25	26	28	29	26	26	28	33	34	35	33	33	33	34	26	26		26	27		
5000	26	25	26	28	27	26	28	35	36	35	35	35	35	35	27	27		27	28		
6300	27	26	27	28	29	28	30	37	38	37	37	37	37	38	29	29		29	31		
8000	30	29	29	30	31	31	32	40	40	40	40	40	40	40	32	32		31	33		
10000	32	31	31	31	33	33	34	42	42	42	42	42	42	42	34	33		33	35		
OVERALL	70	66	65	67	71	73	77	80	81	71	80	73	73	74	66	69		73	71		

TABLE SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
1/3 OCTAVE BAND																			
9.3																	OMEGA 1.5		
DISTANCE = 100 METERS																	TEST DP-019-700		
NOISE SOURCE/SUBJECT:																	RUN 01		
(F101 ENGINE IN THE)																			
(A/F321-9 NSS)																	11 MAR 87		
(MCCONNELL AFB, KANSAS)																			
(FAR FIELD NOISE)																	PAGE 3		
()																			
OPERATION:																	METEOROLOGY:		
()																	TEMP = 15 C		
()																	BAR PRESS = 0.760 M HG		
()																	REL HUMID = 70 %		
()																			
ANGLE (DEGREES)																			
FREQ	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
(3.15)					61	75	62	75	69	63	67	82	78	70	75	74			
4					62	72	62	77	66	65	67	81	77	72	74	73			
5					58	71	63	74	69	64	68	82	78	74	74	59			
6.3					60	69	60	73	67	63	67	80	77	69	74	69			
8					61	72	63	70	68	62	65	79	73	66	71	66			
10					61	72	61	70	69	63	69	79	72	64	71	65			
12.5					58	70	60	69	65	63	66	78	69	63	67	65			
16					56	68	59	67	63	62	66	77	68	63	68	63			
20					54	65	56	64	61	60	63	75	66	59	65	61			
25	62	62	58	59	53	64	54	66	57	58	61	74	64	59	64	61			
31.5	60	60	58	58	52	60	52	62	57	56	61	71	63	58	63	59			
40	56	55	54	55	48	56	50	59	54	53	59	69	60	56	59	57			
50	55	54	53	54	47	52	51	55	50	52	53	69	56	50	55	53			
63	55	52	53	54	46	50	50	55	49	53	54	66	55	49	53	54			
80	53	53	51	52	42	48	48	52	49	49	50	63	52	48	52	51			
100	56	56	54	54	43	46	46	49	47	51	50	59	50	50	51	51			
125	54	57	57	61	47	51	47	49	48	49	49	57	48	49	51	50			
160	50	50	48	48	40	41	41	44	42	42	42	52	45	42	46	46			
200	49	50	56	51	42	40	39	45	42	42	43	48	42	38	42	46			
250	50	49	50	49	40	39	40	41	43	40	41	45	40	36	38	42			
315	51	51	45	48	37	38	42	42	45	37	37	41	37	35	37	40			
400	43	40	41	41	36	39	41	40	40	36	37	39	39	37	36	38			
500	44	39	43	40	36	36	41	40	42	38	38	39	41	38	36	39			
630	46	48	56	43	31	33	37	37	39	38	36	37	40	36	36	39			
800	48	44	52	43	30	31	38	38	44	39	41	35	38	36	37	39			
1000	41	39	42	42	26	27	31	32	34	33	33	33	33	30	32	34			
1250	41	38	40	44	25	26	30	31	32	32	33	32	32	30	31	34			
1600	37	36	36	40	24	24	30	31	31	31	30	31	31	29	30	32			
2000	38	36	35	36	23	24	31	32	36	33	32	31	30	28	30	32			
2500	52	47	45	39	28	30	43	43	49	44	42	38	34	36	37	39			
3150	39	37	36	33	23	25	31	33	34	33	32	33	31	29	30	31			
4000	43	41	39	33	25	28	36	38	35	36	35	35	33	31	32	33			
5000	47	44	41	34	26	28	37	38	34	37	36	36	34	33	34	35			
6300	40	38	36	33	28	29	32	38	30	37	37	37	36	35	35	36			
8000	41	39	37	35	31	32	33	40	32	40	40	40	39	38	38	38			
10000	39	38	37	37	32	33	33	42	33	42	42	42	41	41	41	41			
OVERALL	67	67	66	66	69	81	71	82	77	73	77	89	84	78	82	79			

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)																		IDENTIFICATION:	
1/3 OCTAVE BAND																			
DISTANCE = 100 METERS																		OMEGA 1.5	
																		TEST DP-019-700	
NOISE SOURCE/SUBJECT:																		RUN 04	
(OPERATION:																			
(AFTERBURNER PWR(100% RPM)) TEMP = 15 C																			
(SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG																			
(RUNUP IN THE A/F32T-9) REL HUMID = 70 %																		11 MAR 87	
(MSS MCCONNELL AFB)																		PAGE 3	
(FAR FIELD NOISE																			
ANGLE (DEGREES)																		**	
FREQ	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
3.15	74	76	77	76	74	71	74	77	77	75	79	82	79	78	78	75	77	79	
4	87	89	88	87	79	75	78	79	80	81	82	85	82	79	82	82	81	82	
5	87	85	87	85	82	84	81	85	83	85	84	86	84	82	84	86	85	87	
6.3	89	89	90	88	85	84	82	86	86	82	84	88	88	86	86	91	92	91	
8	92	92	91	87	89	88	89	90	90	93	92	91	92	92	92	96	92	94	
10	92	93	92	89	92	91	90	92	95	96	93	94	95	92	93	98	96	95	
12.5	94	96	93	91	93	94	95	96	97	98	98	97	97	95	101	102	100	98	
16	96	94	94	94	97	98	100	100	99	102	98	99	98	103	103	104	99	104	
20	95	91	92	93	96	95	98	99	98	103	97	99	97	100	96	96	100	100	
25	96	92	93	93	95	97	98	98	98	101	99	98	93	98	102	99	100	101	
31.5	92	91	93	91	93	95	96	95	97	99	97	93	92	97	99	104	102	100	
40	93	93	92	87	89	92	95	93	95	94	94	90	91	93	98	101	98	100	
50	97	92	92	89	88	92	94	94	95	91	95	90	93	95	98	99	101	101	
63	95	89	89	83	83	90	93	91	93	95	91	88	91	91	94	99	98	98	
80	91	87	85	79	77	87	88	89	92	93	89	85	85	87	90	93	93	93	
100	89	87	85	77	76	85	86	85	87	87	86	80	82	84	84	88	89	88	
125	86	85	83	75	70	82	84	83	85	87	82	78	77	82	81	83	86	85	
160	85	84	82	70	67	82	82	80	83	83	81	76	76	79	78	79	82	83	
200	81	83	81	70	67	81	79	77	82	83	81	77	77	77	76	78	80	79	
250	83	83	80	71	66	78	75	75	80	82	78	78	79	77	77	82	79	81	
315	80	77	76	69	61	75	72	72	78	79	75	75	78	79	78	84	82	84	
400	78	72	71	65	57	71	70	70	76	77	76	72	77	80	80	86	85	86	
500	76	70	69	63	55	70	69	72	74	76	78	72	78	81	83	87	89	89	
630	74	68	67	60	53	70	69	71	73	75	79	71	77	80	82	84	86	85	
800	75	67	67	60	52	68	69	70	73	77	78	69	73	77	80	81	80	78	
1000	75	66	66	59	52	67	69	70	74	77	76	68	72	75	76	79	80	82	
1250	73	64	65	58	51	67	68	69	72	76	74	68	72	74	76	79	81	80	
1600	72	64	65	57	51	65	66	68	70	74	72	67	70	73	74	78	79	79	
2000	71	63	64	56	50	64	65	67	69	71	71	66	68	70	73	76	77	76	
2500	70	62	62	54		63	63	65	68	70	69	64	66	68	71	74	75	75	
3150	67	60	60	53		61	61	63	65	68	66	60	63	66	68	71	72	72	
4000	65	60	59	52		59	59	61	63	65	64								
5000	63	59	58	53		57	58	59	60										
6300		59	58	55		58	58	59	59										
8000		60	59	58		60	61	61	61										
10000		61	61	61		62	63	63	63										
OVERALL	105	104	103	101	103	104	106	106	107	109	106	106	105	108	109	111		110	110

** NO DATA COLLECTED.

TABLE	MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:	
9.4	DISTANCE = 100 METERS																	OMEGA 1.5	
NOISE SOURCE/SUBJECT:	OPERATION:																	TEST DP-079-700	
F101 ENGINE IN THE	BACKGROUND NOISE																	RUN 05	
A/F32T-9 MSS	SINGLE ENGINE GROUND																	11 MAR 87	
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9																		
FAR FIELD NOISE	N55 MCCONNELL AFB																	PAGE 4	
	ANGLE (DEGREES)																		
	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
HAZARD/PROTECTION																			
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DB) AT EAR																			
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DB) AT EAR																			
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																			
NO PROTECTION																			
OASLC	68	64	64	65	57	61	67	69	66	60	68	62	62	64	59	60		63	61
OASLA	47	47	50	49	42	43	46	48	48	48	48	47	47	48	44	45		45	44
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440		1440	1440
COMMUNICATION																			
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																			
PSIL	34	36	39	40	32	33	36	38	39	38	39	37	38	38	35	36		35	35
ANNOYANCE																			
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																			
TONE CORRECTION (C IN DB)																			
PNLT	60	61	64	63	54	56	58	62	62	61	62	61	60	61	56	57		57	57
C	0	1	1	1	1	1	0	1	1	0	0	1	0	0	1	0		0	0

** NO DATA COLLECTED.

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																
IDENTIFICATION:																
9.4																
DISTANCE = 100 METERS																
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:																
F101 ENGINE IN THE (IDLE POWER) TEMP = 15 C																
A/F32T-9 NSS (SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG																
MCCONNELL AFB, KANSAS (RUNUP IN THE A/F32T-9) REL HUMID = 70 %																
FAR FIELD NOISE (NSS MCCONNELL AFB)																
PAGE 4																
HAZARD/PROTECTION																
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																
NO PROTECTION																
OASLC 65 65 65 65 65 67 60 68 64 63 66 77 68 63 68 65 72 70																
OASLA 57 55 58 53 42 44 49 50 53 50 49 51 48 47 49 49 50																
T 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																
COMMUNICATION																
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
PSIL 50 47 50 44 33 34 42 42 45 42 42 40 40 38 39 41 40 41																
ANNNOYANCE																
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																
TONE CORRECTION (C IN DB)																
PNLT 76 73 72 68 56 58 67 68 72 68 63 67 68 63 62 64 66 65																
C 4 3 3 2 2 2 4 3 4 3 3 2 1 2 2 2 2 4																
** NO DATA COLLECTED.																

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																
9.4 DISTANCE = 100 METERS																
IDENTIFICATION:																
NOISE SOURCE/SUBJECT:																
(F101 ENGINE IN THE)																
(A/F32T-9 NSS)																
(MCCONNELL AFB, KANSAS)																
(FAR FIELD NOISE)																
(NSS MCCONNELL AFB)																
METEOROLOGY:																
(TEMP = 15 C)																
(BAR PRESS = 0.760 M HG)																
(REL HUMID = 70 %)																
(PAGE 4)																
HAZARD/PROTECTION																
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																
NO PROTECTION																
OASLC	102	99	98	95	97	100	102	101	102	104	102	100	99	102	104	107
OASLA	85	81	80	72	67	80	80	80	83	86	85	79	83	86	87	91
T	404	807	960	1440	1440	960	960	960	571	339	404	1142	571	339	285	143
COMMUNICATION																
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
PSIL	77	69	69	62	70	70	70	72	75	77	77	77	77	79	82	83
ANNOYANCE																
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																
TONE CORRECTION (C IN DB)																
PNLT	101	97	96	90	84	96	97	97	99	100	99	94	96	99	101	104
C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
** NO DATA COLLECTED.																

TABLE		SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
9.5		OCTAVE BAND																			
		DISTANCE = 100 METERS																			
NOISE SOURCE/SUBJECT:		OPERATION:																	OMEGA 1.5		
F101 ENGINE IN THE		BACKGROUND NOISE																	TEST DP-019-700		
A/F32T-9 NSS		SINGLE ENGINE GROUND																	RUN 05		
MCCONNELL AFB, KANSAS		RUNUP IN THE A/F32T-9																	11 MAR 87		
FAR FIELD NOISE		NSS MCCONNELL AFB																			
																			PAGE 5		
FREQ		ANGLE (DEGREES)																			
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	**
4						68	68	71	76	79	68	77	69	69	71	61	65		68	68	
8						66	69	73	75	76	66	74	68	69	69	62	65		69	67	
16						58	65	72	73	73	63	72	64	65	67	55	59		64	61	
31.5			68	63	64	52	57	64	69	62	57	68	60	61	63	55	57		61	59	
63			64	60	60	52	53	59	55	57	54	60	56	55	58	55	57		58	57	
125			59	59	57	56	51	53	55	52	53	57	52	52	53	54	54		56	55	
250			50	50	55	52	41	44	48	49	47	46	48	43	41	42	46		43	43	
500			40	41	43	45	39	41	43	43	39	42	40	42	43	41	42		41	40	
1000			36	40	44	43	32	33	38	38	38	39	36	36	36	36	38		37	36	
2000			31	34	38	39	29	28	33	34	35	36	34	34	35	31	32		33	31	
4000			30	31	33	34	30	30	33	38	39	38	38	38	39	31	31		31	32	
8000			35	34	34	35	36	36	37	45	45	45	45	45	45	37	37		36	38	
OVERALL		70	66	65	67	71	73	77	80	81	71	80	73	73	74	66	69		73	71	

NO DATA COLLECTED.

** NO DATA COLLECTED.

TABLE	SOUND PRESSURE LEVEL (DB)	IDENTIFICATION:
9.5	OCTAVE BAND	
	DISTANCE = 100 METERS	OMEGA 1.5
		TEST DP-OT9-700
		RUN 04
NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
F101 ENGINE IN THE	AFTERBURNER PWR(100X RPM)	TEMP = 15 C
A/F32T-9 NSS	SINGLE ENGINE GROUND	BAR PRESS = 0.760 M HG
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9	REL HUMID = 70 X
FAR FIELD NOISE	NSS MCCONNELL AFB	PAGE 5
FREQ (HZ)	ANGLE (DEGREES)	
0	350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180	
4	90 91 90 89 84 84 83 86 86 87 87 89 89 87 85 87 88	87 88
8	96 96 93 94 93 93 94 96 98 96 96 96 96 97 96 97 101	98 98
16	100 99 98 100 101 103 103 103 106 102 103 102 103 102 105 106 107	105 106
31.5	99 97 97 96 98 100 101 101 102 104 102 100 97 101 105 106 105	105 105
63	100 95 94 90 89 95 97 96 98 98 97 93 95 97 100 102	103 103
125	92 90 89 80 77 88 89 88 90 91 88 83 84 87 87 89	91 91
250	86 87 84 75 70 84 81 80 85 87 84 82 83 82 87 87	85 87
500	81 75 74 68 60 75 74 76 79 81 82 76 82 85 87 91	92 92
1000	79 71 71 64 56 72 73 75 78 81 81 73 77 81 83 85	85 85
2000	76 68 68 61 53 69 69 72 74 77 75 71 73 76 77 81	82 82
4000	70 65 64 57 64 64 66 68 69 68 69 68 69 69 73 74	75 74
8000	65 64 63 65 66 66 66 66 66 66 66 66 66 66 66 66	68
OVERALL	105 104 103 101 103 104 106 106 107 109 106 106 105 108 109 111	110 110

** NO DATA COLLECTED.

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APPENDIX H

Far-Field Noise on the

F108-CF-100 Engine

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TABLE 10.1

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS
F108-CF-100 ENGINE IN THE A/F32T-9 NOISE SUPPRESSOR SYSTEM
McCONNELL AFB, KANSAS

Date of Test: 16 April 1986

Time of Test: 1530 Hrs

Engine Operation

Flight Idle	35.4 %RPM
Max Cont Power	88.6 %RPM
Take-Off Power	89.4 %RPM

Meteorology

Temperature	16 Deg C
Bar Pressure	0.727 M Hg
Rel Humidity	47 %
Wind - Speed	7 - 9 Knots
- Direction	120 Deg (True)

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:		
10.2		1/3 OCTAVE BAND																		
		DISTANCE = 100 METERS																		
NOISE SOURCE/SUBJECT:		(OPERATION:																		
F108 ENGINE IN THE		(BACKGROUND NOISE																		
A/F321-9 NSS AT		(SINGLE ENGINE GROUND																		
MCCONNELL AFB, KANSAS		(RUNUP IN THE A/F321-9																		
FAR FIELD NOISE		(NSS MCCONNELL AFB																		
		(METEOROLOGY:																		
		(TEMP = 16 C																		
		(BAR PRESS = 0.727 M HG																		
		(REL HUMID = 47 %																		
		(PAGE 2																		
FREQ		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
3.15		65	62	67	69	57	64	64	65	75	68	63	58	63	65	68	73	64	62	
4		68	70	71	72	67	69	70	70	73	70	70	70	68	70	71	75	69	68	
5		63	64	68	69	59	65	66	66	71	66	64	61	62	64	65	68	63	62	
6.3		62	62	62	69	59	60	62	61	70	65	63	56	58	62	64	70	63	63	
8		58	61	62	65	58	62	62	60	68	62	57	56	59	61	63	69	60	62	
10		56	59	60	65	61	59	63	63	66	62	59	55	60	61	63	68	62	60	
12.5		55	59	58	64	57	59	61	60	63	60	58	55	56	57	58	64	59	58	
16		56	59	57	62	56	58	60	59	63	59	57	54	56	57	58	64	58	58	
20		57	61	59	62	55	58	60	62	62	59	57	57	57	58	59	63	59	58	
25		57	59	59	62	58	58	60	64	61	59	60	59	59	60	61	61	60	59	
31.5		58	59	60	61	63	60	59	63	62	59	61	61	61	62	63	60	61	59	
40		56	62	63	60	63	58	60	64	62	61	61	60	60	61	63	62	59	60	
50		59	63	57	59	64	60	60	68	60	57	60	60	62	60	59	57	54	60	
63		61	61	58	57	62	61	59	68	63	61	61	60	62	60	59	61	56	61	
80		59	64	53	54	66	64	61	63	64	66	61	59	59	60	60	59	61	66	
100		56	69	54	57	66	64	60	62	68	66	62	65	59	59	58	57	55	57	
125		64	67	63	68	65	70	61	67	71	71	67	70	65	63	62	60	58	59	
160		63	62	59	64	61	57	54	65	61	59	54	57	57	56	55	53	52	53	
200		61	60	55	58	57	54	54	65	60	59	53	54	52	50	48	45	50	49	
250		60	61	60	63	57	58	57	66	62	63	52	50	53	50	48	44	52	49	
315		55	55	53	53	55	57	60	66	66	71	58	58	58	55	51	50	54	52	
400		52	53	50	51	48	49	50	59	53	58	46	46	50	47	44	43	48	47	
500		50	54	52	55	53	53	53	62	54	59	49	48	50	48	46	49	49	49	
630		48	49	48	50	55	57	58	64	57	59	52	52	53	52	51	55	53	53	
800		48	48	48	51	55	56	56	61	56	56	50	49	49	48	48	51	51	49	
1000		48	48	49	53	58	58	58	62	58	58	54	50	50	50	49	53	51	49	
1250		48	48	49	53	60	60	59	62	60	59	56	51	52	51	51	53	51	50	
1600		48	46	46	53	57	60	58	61	57	58	54	48	49	58	47	51	48	47	
2000		47	45	44	49	54	58	56	58	55	56	52	45	48	47	45	49	46	45	
2500		46	47	45	48	52	55	54	55	53	54	49	44	47	45	43	47	43	43	
3150		43	45	43	47	49	50	51	50	51	52	45	41	43	41	39	43	40	41	
4000		40	41	35	43	45	45	47	47	49	50	42	38	41	39	38	39	35	37	
5000		37	40	31	42	40	40	42	43	44	46	39	34	37	35	33	35	30	33	
6300		33	38	28	38	33	35	37	39	39	41	34	32	33	33	33	32	27	29	
8000		31	35	28	34	30	33	33	35	33	35	33	32	33	33	33	32	28	29	
10000		28	31	28	30	29	33	33	34	30	30	33	33	33	33	33	33	29	29	
OVERALL		74	77	76	79	76	76	76	79	81	79	76	75	74	75	76	80	74	74	

TABLE		MEASURED SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
10.2		1/3 OCTAVE BAND																OMEGA 1.5	
		DISTANCE = 100 METERS																TEST DP-019-800	
NOISE SOURCE/SUBJECT:		METEOROLOGY:																RUN 01	
F108 ENGINE IN THE		TEMP = 16 C																	
A/F32T-9 NSS AT		BAR PRESS = 0.727 M HG																11 MAR 87	
MCCONNELL AFB, KANSAS		REL HUMID = 47 %																	
FAR FIELD NOISE		NSS MCCONNELL AFB																PAGE 2	

TABLE MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
1/3 OCTAVE BAND																			
DISTANCE = 100 METERS																	OMEGA 1.5		
NOISE SOURCE/SUBJECT:																	TEST DP-0T9-800		
(F100 ENGINE IN THE																	RUN 02		
(A/F32T-9 NSS AT																	11 MAR 87		
(MCCONNELL AFB, KANSAS																			
(FAR FIELD NOISE																	PAGE 2		
(OPERATION:																			
(MAX CONT PMR(88.6x RPM)																	16 C		
(SINGLE ENGINE GROUND																	BAR PRESS = 0.727 M HG		
(RUNUP IN THE A/F32T-9																	REL HUMID = 47 X		
(NSS MCCONNELL AFB																			
ANGLE (DEGREES)																	**		
FREQ	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
(HZ)																			
3.15	74	79	74	75	70	70	68												
4	78	80	77	78	72	78	75												
5	77	80	77	80	75	77	74												
6.3	80	80	79	78	72	77	77												
8	85	84	82	78	80	81	81												
10	86	84	85	82	83	81	83												
12.5	84	84	83	83	81	82	83												
16	83	86	84	83	84	83	85												
20	84	81	80	81	83	83	84												
25	87	86	86	84	81	82	84	84	86	86	83	82	80	83	84	82	81	82	
31.5	88	87	83	83	79	81	85	83	85	86	83	82	80	82	85	83	82	83	
40	87	85	82	79	77	79	83	83	83	82	80	78	75	76	79	83	80	81	
50	83	82	82	77	72	77	80	80	79	78	77	74	74	77	78	78	78	80	
63	85	82	78	74	73	77	78	76	79	76	76	73	73	73	74	79	78	79	
80	80	80	76	70	68	73	77	75	74	78	74	68	69	68	71	74	75	77	
100	75	76	74	66	65	74	73	68	69	73	71	67	69	67	69	72	74	74	
125	73	74	73	65	78	72	72	68	72	69	70	69	67	68	69	69	74	73	
160	72	72	71	63	63	70	67	63	66	69	67	63	61	63	64	67	72	71	
200	69	71	67	62	62	68	62	63	64	65	63	60	58	62	61	65	71	69	
250	66	65	61	60	59	64	61	62	67	64	60	58	55	61	58	62	66	62	
315	61	62	59	57	59	62	61	62	69	67	62	57	56	60	59	62	62	61	
400	58	59	55	55	51	57	56	57	57	59	55	52	51	61	58	64	63	64	
500	56	57	54	52	51	53	55	57	56	59	56	54	53	62	58	64	62	61	
630	55	57	55	52	59	52	57	58	58	62	58	57	56	62	59	64	63	61	
800	55	56	54	50	58	52	57	57	56	59	56	55	54	61	58	63	64	62	
1000	56	56	56	50	61	53	59	60	59	59	56	56	54	60	58	62	62	61	
1250	54	53	54	48	61	52	60	61	61	60	58	58	55	60	59	62	61	58	
1600	54	52	52	47	58	51	59	60	60	59	56	58	54	57	57	61	58	56	
2000	55	54	52	48	55	50	56	57	58	58	54	56	52	54	55	59	57	56	
2500	56	54	52	51	53	48	54	54	55	57	52	51	51	53	58	55	55	54	
3150	59	58	56	54	51	48	54	53	53	54	48	47	49	49	55	53	52	50	
4000	56	55	53	51	48	45	51	50	50	51	46	45	44	44	52	50	50	50	
5000	53	52	51	48	44	43	47	46	46	47	41	40	41	41	43	49	47	47	
6300	52	50	49	46	38	39	44	42	42	43	40	41	40	41	45	43	43	43	
8000	48	47	46	42		37	40	38	38	41	40	41	40	41	42	39	38		
10000	45	44	44		38	38	38		41	41	41	41	41	41	42				
OVERALL	96	95	94	92	91	92	93	89	90	91	88	86	85	87	88	89	88	89	

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE	MEASURED SOUND PRESSURE LEVEL (DB)	IDENTIFICATION:
10.2	1/3 OCTAVE BAND DISTANCE = 100 METERS	OMEGA 1.5 TEST DP-OT9-800 RUN 03 11 MAR 87 PAGE 2
NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
F108 ENGINE IN THE	(TAKE-OFF PWR (89.4X RPM))	TEMP = 16 C
A/F32T-9 NSS AT	(SINGLE ENGINE GROUND)	BAR PRESS = 0.727 H HG
MCCONNELL AFB, KANSAS	(RUNUP IN THE A/F32T-9)	REL HUMID = 47 X
FAR FIELD NOISE	(NSS MCCONNELL AFB)	
FREQ (HZ)	ANGLE (DEGREES)	
0	30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180	
3.15	74 73 74 81 69 71 72 72 72 76 69 70 70 73 73 76 77 76 73	
4	79 79 77 78 78 76 76 76 76 81 75 75 76 74 72 73 80 79 74 76	
5	79 77 77 78 78 76 76 76 76 81 75 75 76 74 72 73 80 79 74 76	
6.3	81 81 81 79 74 75 80 78 79 77 75 78 79 77 78 80 81 81 81	
8	83 85 80 79 80 78 82 81 82 84 83 79 82 81 82 81 82 81 81	
10	82 86 84 81 81 80 81 84 84 85 85 85 82 83 83 81 88 85 83	
12.5	83 87 83 83 83 82 85 88 88 86 85 86 86 86 87 87 88 88 86	
16	85 86 83 80 84 84 87 89 88 88 86 85 82 90 88 89 86 89	
20	84 82 82 79 83 83 82 85 88 86 85 82 84 82 85 84 82 86 87	
25	88 86 84 82 82 82 84 84 85 85 85 82 82 77 81 83 80 81 83	
31.5	87 87 84 81 82 84 84 84 85 85 87 82 80 77 81 82 85 84 82	
40	86 87 82 78 78 80 83 83 83 82 83 79 77 75 77 80 84 79 83	
50	84 83 81 77 74 78 79 81 80 79 77 75 75 77 79 80 81 81 81	
63	86 82 80 74 74 79 79 78 79 78 77 73 74 74 77 79 80 79 80	
80	81 81 78 71 70 74 79 76 76 76 79 75 70 69 70 73 76 76 78	
100	75 77 77 68 66 66 75 75 71 71 74 71 66 67 68 71 73 75 75	
125	73 75 76 68 66 66 75 73 70 74 70 70 68 66 68 71 72 75 73	
160	72 72 66 61 71 70 65 66 69 68 63 61 58 55 58 60 64 66 70	
200	71 71 69 64 59 70 68 63 64 63 64 61 58 55 58 60 64 66 71	
250	68 67 65 61 56 67 65 62 64 64 61 59 55 58 60 63 66 67 71	
315	65 64 62 59 58 65 63 66 72 68 60 56 58 57 60 63 63 63 63	
400	62 61 60 58 52 60 58 58 60 61 55 52 51 59 62 66 65 64 64	
500	62 60 58 57 57 59 57 56 60 61 55 54 52 60 61 66 63 61 61	
630	62 59 59 57 61 61 60 60 63 63 56 58 53 60 61 65 63 63 63	
800	64 58 59 56 57 59 57 58 59 59 60 55 53 53 59 64 65 65 64	
1000	63 59 59 56 61 61 59 61 60 60 58 56 55 60 59 64 63 63 63	
1250	61 58 58 56 62 62 60 60 62 61 60 60 55 55 61 60 63 61 61	
1600	60 57 57 54 60 59 59 59 60 59 59 55 53 59 59 62 60 59 59	
2000	59 57 56 54 56 56 56 58 57 58 58 56 52 57 57 60 59 58 58	
2500	59 56 55 53 53 53 53 55 56 56 56 53 50 56 55 59 58 57 57	
3150	60 58 57 52 50 51 53 55 54 53 53 49 47 53 52 56 55 54 54	
4000	57 56 55 48 47 48 52 53 52 53 49 46 45 49 50 54 53 53 53	
5000	54 53 52 46 42 45 49 49 49 49 45 43 43 43 46 48 52 50 50	
6300	52 50 50 44 38 41 46 46 45 45 46 43 41 41 43 44 48 47 47	
8000	48 47 47 43 38 44 44 44 44 44 42 42 42 42 42 43 45 44 44	
10000	44 44 43 38 38 43 43 43 43 43 43 43 43 43 43 43 43 43 43	
OVERALL	96 96 93 91 92 92 94 95 95 95 93 92 91 94 94 96 95 95	

NO BACKGROUND CORRECTION APPLIED.

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
1/3 OCTAVE BAND																			
DISTANCE = 100 METERS																	OMEGA 1-5		
																	TEST DP-019-800		
																	RUN 05		
NOISE SOURCE/SUBJECT:																			
OPERATION:																			
F108 ENGINE IN THE																			
A/F32T-9 NSS AT																	15 C		
MCCONNELL AFB, KANSAS																	BAR PRESS : 0.760 M HG		
FAR FIELD NOISE																	REL HUMID : 70 %		
																	PAGE 3		
FREQ	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
(HZ)																			
3.15	65	62	67	69	57	64	64	65	75	68	63	58	63	65	68	73		64	62
4	68	70	71	72	67	69	70	70	73	70	70	70	68	70	71	75		69	68
5	63	65	68	69	59	66	66	67	71	66	64	61	62	64	65	68		64	63
6.3	63	62	62	70	59	60	62	61	70	65	64	57	59	62	65	70		63	63
8	58	61	63	65	59	62	63	60	68	62	57	56	60	61	63	69		61	63
10	56	59	60	65	61	59	63	63	66	62	59	55	60	61	63	68		62	60
12.5	55	59	58	64	57	59	61	60	63	60	58	55	56	57	58	64		59	58
16	56	59	57	62	56	58	60	59	63	59	57	54	56	57	58	64		58	58
20	58	61	59	62	55	58	60	62	63	59	58	58	57	58	59	64		59	58
25	57	59	59	62	59	59	61	64	61	59	60	59	59	60	61	61		60	60
31.5	59	59	61	61	63	60	59	63	62	59	61	61	61	62	63	60		61	59
40	56	62	63	60	63	58	60	64	62	61	61	60	60	61	63	62		59	60
50	59	63	57	59	64	60	60	68	60	57	60	60	62	61	59	57		54	60
63	61	61	58	57	62	61	59	68	63	61	61	60	62	60	59	61		56	61
80	59	64	54	54	67	64	61	63	64	67	62	60	59	60	61	59		62	67
100	56	69	54	57	66	64	60	62	68	66	62	65	59	59	58	57		55	57
125	64	67	64	69	65	70	61	67	71	71	67	70	65	63	62	60		58	59
160	63	62	59	65	61	57	54	66	61	59	55	57	58	56	55	53		52	53
200	61	60	55	58	57	54	54	65	60	59	53	54	52	50	48	45		50	49
250	60	61	60	63	57	58	57	66	62	63	52	50	53	51	48	44		52	49
315	55	55	53	53	55	57	60	66	66	72	58	58	58	55	51	50		54	52
400	53	53	51	52	48	49	50	60	54	59	46	46	50	48	45	43		48	47
500	50	54	52	55	53	53	53	63	54	59	49	48	51	49	47	50		49	49
630	48	49	48	50	56	57	58	64	57	60	53	52	53	52	51	56		53	53
800	48	49	48	51	56	56	57	61	56	56	50	49	49	49	48	52		52	49
1000	48	48	50	53	58	59	58	63	58	58	54	50	50	50	50	54		51	49
1250	48	48	49	53	60	61	60	63	60	59	56	52	52	52	51	53		51	50
1600	48	47	46	53	57	61	59	62	58	59	55	49	50	59	48	51		49	47
2000	47	45	44	49	55	58	56	58	56	56	52	46	49	47	45	50		46	45
2500	47	47	46	49	53	55	54	56	54	54	49	44	48	45	43	47		44	44
3150	44	46	43	48	50	51	52	51	51	53	45	42	44	42	40	44		41	42
4000	41	43	36	45	46	46	48	48	50	51	43	39	42	40	39	40		36	38
5000	39	41	33	43	41	42	44	44	46	47	40	36	39	37	35	36		32	34
6300	35	40	30	40	35	37	39	41	41	43	36	34	35	35	35	34		29	31
8000	34	38	31	37	33	36	36	38	36	38	36	35	36	36	36	35		31	32
10000	32	35	32	34	33	37	37	38	34	34	37	37	37	37	37	37		33	33
OVERALL	75	77	76	79	76	77	76	79	81	79	76	75	74	75	76	80		75	75

** NO DATA COLLECTED.

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																	
10.3		OMEGA 1.5																	
DISTANCE = 100 METERS		TEST DP-OT9-800																	
NOISE SOURCE/SUBJECT:		RUN 01																	
F108 ENGINE IN THE		METEOROLOGY:																	
A/F32T-9 NSS AT		TEMP 15 C																	
MCCONNELL AFB, KANSAS		BAR PRESS = 0.760 M HG																	
FAR FIELD NOISE		REL HUMID = 70 %																	
OPERATION:		PAGE 3																	
FLIGHT IDLE (35.4X RPM)																			
SINGLE ENGINE GROUND																			
RUNUP IN THE A/F32T-9																			
NSS MCCONNELL AFB																			
FREQ (HZ)	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
3.15	36	59	73	74	71	73	63	67	63	64	66	67	68	74	73	76		71	68
4	69	72	73	73	73	71	70	70	69	70	71	70	72	76	74	77		73	70
5	62	64	73	72	72	68	64	66	65	64	65	69	66	71	70	76		70	64
6.3	70	65	70	68	69	69	67	67	65	61	64	71	63	69	69	75		70	64
8	70	71	73	71	66	68	67	70	67	65	64	68	65	68	67	74		72	70
10	68	68	72	71	69	68	66	66	67	71	71	70	67	69	69	74		70	67
12.5	66	66	69	67	68	68	64	65	63	68	64	66	66	67	68	69		65	64
16	67	67	70	66	64	67	68	64	64	66	66	67	70	70	71	69		64	67
20	69	65	68	67	64	63	65	66	66	67	65	64	66	66	67	68		67	67
25	76	74	71	71	67	66	68	68	68	68	68	66	64	64	68	65		65	67
31.5	77	75	71	67	74	65	70	62	65	64	65	62	64	61	74	64		64	62
40	64	66	64	61	60	60	61	61	63	63	63	63	64	63	63	62		62	59
50	63	62	63	60	63	60	60	59	63	65	66	62	60	58	58	60		56	57
63	63	62	62	60	65	61	61	59	62	65	62	62	59	61	58	59		55	57
80	63	61	61	58	68	58	58	57	60	61	60	59	58	60	57	59		61	58
100	60	58	60	54	69	60	57	64	63	60	59	62	58	58	56	54		60	54
125	56	55	58	57	55	64	63	65	69	65	65	67	63	62	62	56		61	58
160	56	54	59	60	58	60	55	56	58	58	59	59	58	54	53	50		52	53
200	54	54	57	58	58	63	52	57	57	55	55	56	53	51	50	47		47	49
250	50	51	55	51	54	60	55	60	58	56	51	51	46	47	46	45		45	47
315	50	51	50	53	56	70	61	63	59	66	60	58	52	51	51	50		47	47
400	47	45	44	48	49	57	50	53	54	51	46	46	44	44	45	47		42	43
500	46	46	45	46	50	56	50	54	58	52	49	47	47	46	48	49		47	46
630	46	46	48	47	54	57	52	56	60	56	53	50	51	50	51	52		52	50
800	44	44	47	43	53	55	52	54	59	50	49	47	48	46	50	48		48	48
1000	44	43	47	45	56	59	55	55	59	52	53	51	50	49	51	50		52	50
1250	44	42	46	45	54	61	57	57	62	55	55	55	52	52	53	53		56	53
1600	45	42	43	42	54	62	57	55	60	54	54	53	51	50	53	51		53	51
2000	47	45	43	42	50	57	54	52	59	53	53	51	49	48	51	49		50	49
2500	52	49	47	43	48	54	52	51	57	51	52	51	48	47	49	47		48	48
3150	47	43	42	41	46	51	50	49	55	48	49	48	45	44	45	44		43	45
4000	45	41	40	37	44	50	48	47	53	45	47	45	43	42	42	40		40	42
5000	49	44	43	39	41	47	45	44	49	42	44	41	39	38	37	36		36	36
6300	43	37	36	35	36	41	39	39	46	38	38	36	35	35	34	35		33	34
8000	41	37	36	38	36	37	37	38	43	36	36	36	36	36	35	36		35	36
10000	42	37	37	38	38	37	37	38	39	38	37	37	37	37	37	37		37	38
OVERALL	82	81	83	81	82	80	78	79	79	79	79	79	78	81	82	84		80	78

** NO DATA COLLECTED

TABLE		SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:								
10.3		1/3 OCTAVE BAND																		
		DISTANCE : 100 METERS										OMEGA 1.5								
												TEST DP-019-800								
NOISE SOURCE/SUBJECT:		OPERATION:										RUN 02								
F108 ENGINE IN THE		MAX CONT PWR(88.6% RPM)										15 C								
A/F32T-9 NSS AT		SINGLE ENGINE GROUND										BAR PRESS : 0.760 M HG								
MCCONNELL AFB,KANSAS		RUNUP IN THE A/F32T-9										REL HUMID : 70 %								
FAR FIELD NOISE		NSS MCCONNELL AFB										PAGE 3								
FREQ		ANGLE (DEGREES)																		
(HZ)		0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
3.15	74	79	74	75	70	70	70	68	84	86	86	83	82	80	83	84	82	81	82	
4	78	80	77	78	72	78	75	75	83	85	86	83	82	80	83	83	85	83	82	
5	78	80	77	81	75	77	75	75	83	83	83	82	80	78	75	77	79	80	81	
6.3	80	80	79	79	72	78	77	77	80	79	78	77	75	74	77	78	78	79	80	
8	85	84	82	78	80	81	81	81	80	79	76	76	73	73	73	74	79	78	79	
10	86	84	85	82	83	81	83	83	80	79	74	74	69	69	68	71	74	75	77	
12.5	84	84	83	83	81	82	83	85	77	75	74	78	74	69	67	69	72	74	74	
16	83	86	84	84	84	83	85	84	73	73	73	71	67	69	67	69	72	72	72	
20	84	82	81	81	84	83	84	84	68	69	73	71	67	69	67	69	72	74	74	
25	87	86	86	84	82	82	84	84	68	72	69	70	69	67	68	69	69	74	73	
31.5	88	87	84	83	79	81	85	85	63	66	69	67	63	61	63	64	67	72	72	
40	87	85	82	79	77	79	83	83	62	63	64	65	63	60	58	62	61	65	71	69
50	83	82	82	77	73	78	80	80	62	67	64	60	58	55	61	58	62	66	62	
63	85	82	78	75	73	77	78	78	62	69	67	63	57	56	60	59	62	62	61	
80	80	80	76	70	68	73	77	77	58	57	60	55	53	51	61	58	64	64	64	
100	75	77	74	66	65	74	73	73	57	56	58	57	56	53	51	61	58	64	64	
125	73	74	73	65	78	72	72	72	57	56	59	56	54	53	62	58	64	62	61	
160	72	73	71	63	63	70	67	67	63	66	69	67	63	61	63	64	67	72	72	
200	70	71	67	62	62	68	62	62	63	64	65	63	60	58	62	61	65	71	69	
250	66	65	62	60	59	64	61	62	67	64	60	60	58	55	61	58	62	66	62	
315	61	62	59	57	59	62	61	62	69	67	63	57	56	56	60	59	62	62	61	
400	59	60	55	55	51	57	56	58	57	58	57	60	55	53	51	61	64	64	64	
500	56	57	54	52	52	54	55	57	56	59	59	56	54	53	62	58	64	62	61	
630	55	57	55	52	59	52	58	58	58	62	62	58	58	56	62	59	64	63	62	
800	55	56	54	50	58	53	57	58	57	58	59	56	55	54	61	58	63	64	63	
1000	56	56	56	50	62	53	60	61	60	60	59	57	57	54	60	59	62	62	61	
1250	54	53	54	48	61	52	61	61	62	60	60	58	58	56	60	59	62	61	58	
1600	55	53	52	48	59	51	60	60	60	61	60	56	58	54	58	58	61	59	57	
2000	55	54	52	48	56	50	57	57	58	59	59	55	56	52	55	55	59	57	56	
2500	56	55	53	51	54	49	55	55	56	57	57	52	53	51	52	53	58	56	55	
3150	60	58	56	54	52	48	55	54	54	54	54	50	49	48	48	50	56	53	53	
4000	57	56	54	52	49	46	52	51	51	51	52	47	46	45	45	47	53	51	51	
5000	55	53	52	49	45	44	49	47	48	49	49	43	42	42	43	44	51	49	49	
6300	54	52	51	48	41	42	46	44	44	44	45	43	42	42	42	43	47	45	45	
8000	51	50	49	45	40	40	43	41	41	41	44	44	44	44	43	44	45	42	41	
10000	49	48	48	42	42	42	42	42	42	45	45	45	45	45	45	45	45	46	46	
OVERALL	96	95	94	92	92	92	92	94	89	91	91	88	87	85	87	88	90	86	89	

** NO DATA COLLECTED.

TABLE	MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)	IDENTIFICATION:
104	DISTANCE : 100 METERS	
NOISE SOURCE/SUBJECT:	OPERATION:	OMEGA 1.5
F108 ENGINE IN THE	BACKGROUND NOISE	TEST DP-019-800
A/F32T-9 NSS AT	SINGLE ENGINE GROUND	RUN 05
MC CONNELL AFB, KANSAS	RUNUP IN THE A/F32T-9	15 C
FAR FIELD NOISE	NSS MC CONNELL AFB	BAR PRESS : 0.760 M HG
		REL HUMID : 70 X
		PAGE 4
HAZARD/PROTECTION	ANGLE (DEGREES)	
	0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180	
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR		
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR		
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)		
NO PROTECTION		
OASLC	71 74 70 73 74 74 71 77 76 77 72 73 71 70 69 69	68 70
OASLA	60 61 59 63 66 68 67 71 69 70 63 61 61 62 58 61	60 59
1	1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440	1440 1440
COMMUNICATION		
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)		
PSIL	52 53 51 55 58 60 60 63 59 61 55 51 53 50 54	51 51
ANNOYANCE		
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PMDB)		
TONE CORRECTION (C IN DB)		
PNLT	74 76 73 78 78 82 80 84 82 85 77 76 75 79 71 74	72 72
C	1 1 1 1 0 2 1 1 1 2 2 2 1 3 1 2	1 1
** NO DATA COLLECTED.		

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	
10.4 DISTANCE = 100 METERS																	
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:) IDENTIFICATION:																	
F108 ENGINE IN THE (FLIGHT IDLE (35.4X RPM)) TEMP = 15 C) OMEGA 1.5																	
A/F321-9 NSS AT (SINGLE ENGINE GROUND) BAR PRESS = 0.760 M HG) TEST DP-019-800																	
MCCONNELL AFB, KANSAS (RUNUP IN THE A/F321-9) REL HUMID = 70 X) RUN 01																	
FAR FIELD NOISE (NSS MCCONNELL AFB)) PAGE 4																	
HAZARD/PROTECTION																	
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																	
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																	
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																	
NO PROTECTION																	
OASLC	77	76	75	72	76	75	73	73	75	74	73	73	71	71	74	71	70 69
OASLA	59	57	58	57	63	70	65	65	69	65	63	62	60	59	61	60	61 60
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440 1440
COMMUNICATION																	
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																	
PSIL	51	49	50	48	55	61	57	57	62	56	56	54	52	52	53	52	53 52
ANNOYANCE																	
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PHNDB)																	
TONE CORRECTION (C IN DB)																	
PNLT	77	74	74	70	77	84	78	78	83	80	79	77	74	73	74	73	74 73
C	2	2	2	0	1	2	1	1	1	2	2	2	1	1	1	1	1 1
NO DATA COLLECTED																	

TABLE	MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																	IDENTIFICATION:
10.4	DISTANCE = 100 METERS																	OMEGA 1.5
NOISE SOURCE/SUBJECT:	OPERATION:																	TEST DP-019-800
F108 ENGINE IN THE	MAX CONT PWR(88.6X RPM)																	RUN 02
A/F321-9 NSS AT	SINGLE ENGINE GROUND																	11 MAR 87
MCCONNELL AFB, KANSAS	RUNUP IN THE A/F321-9																	REL HUMID = 70 %
FAR FIELD NOISE	NSS MCCONNELL AFB																	PAGE 4
	ANGLE (DEGREES)																	**
	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170 180
HAZARD/PROTECTION																		
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR																		
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR																		
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																		
NO PROTECTION																		
OASLC	92	91	89	86	85	86	89	87	88	88	86	84	82	84	85	87	86	87
OASLA	70	70	68	64	69	66	69	69	70	70	67	67	64	69	68	72	72	71
T	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
COMMUNICATION																		
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																		
PSIL	61	61	59	56	60	56	61	61	61	62	59	58	57	61	60	65	63	62
ANNOYANCE																		
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																		
TONE CORRECTION (C IN DB)																		
PNLT	88	86	84	80	86	82	84	83	85	86	81	80	78	81	81	85	85	84
C	0	0	0	0	2	0	0	0	1	1	1	1	1	0	0	0	0	0
** NO DATA COLLECTED.																		

TABLE MEASURES OF HUMAN NOISE EXPOSURE (AFR 161-35, APRIL 82)																
IDENTIFICATION:																
DISTANCE 100 METERS																
NOISE SOURCE/SUBJECT:																
F108 ENGINE IN THE (TAKE-OFF PWR (89.4X RPM)) METEOROLDOY.																
A/F32T-9 NSS AT (SINGLE ENGINE GROUND) TEMP 15 C																
MCCONNELL AFB, KANSAS (RUNUP IN THE A/F32T-9) BAR PRESS 0.760 M HG																
FAR FIELD NOISE (NSS MCCONNELL AFB) REL HUMID 70 %																
PAGE 4																
HAZARD/PROTECTION																
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DB) AT EAR																
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DB) AT EAR																
LIMITING TIME (T IN MINUTES) FOR TOTAL DAILY EXPOSURE (AFR 161-35, TABLE 5, APRIL 82)																
NO PROTECTION																
OASLC 92 91 89 85 85 88 89 89 90 87 85 84 87 88 89																
OASLA 73 71 71 67 69 71 70 70 72 71 69 66 64 69 70 73																
T 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440 1440																
COMMUNICATION																
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)																
PSIL 66 63 62 59 61 62 62 63 63 63 61 58 56 62 62 66																
ANNNOYANCE																
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)																
TONE CORRECTION (C IN DB)																
PNLT 90 88 87 81 82 85 86 85 88 87 83 81 79 83 83 87																
C 0 0 0 0 1 0 1 1 2 1 0 1 1 0 0 0																
NO DATA COLLECTED																

TABLE SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																	
10.5		OMEGA 1.5																	
DISTANCE : 100 METERS		TEST DP-019-000																	
NOISE SOURCE/SUBJECT:		OPERATION:																	
F100 ENGINE IN THE		BACKGROUND NOISE																	
A/F32T-9 NSS AT		SINGLE ENGINE GROUND																	
MCCONNELL AFB-KANSAS		RUNUP IN THE A/F32T-9																	
FAR FIELD NOISE		NSS MCCONNELL AFB																	
FREQ		ANGLE (DEGREES)																	
(HZ)		°°																	
0		350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
4		71	72	74	75	68	71	72	78	73	72	71	70	72	74	78	71	70	
8		65	66	67	72	64	65	68	66	68	66	61	64	66	69	74	67	67	
16		61	63	63	67	61	63	65	65	68	64	62	61	61	62	63	64	63	
31.5		62	65	66	66	67	64	65	69	67	65	65	65	66	67	66	65	64	
63		65	68	61	62	70	67	65	72	67	68	66	65	66	65	64	63	68	
125		67	72	65	70	69	71	64	70	73	72	68	71	67	65	64	62	61	62
250		64	64	62	65	61	62	63	71	69	72	60	60	57	54	52	57	55	
500		55	57	55	58	58	59	60	67	60	64	55	54	56	54	53	57	55	
1000		53	53	54	57	63	63	63	67	63	63	59	55	55	55	58	56	54	
2000		52	51	50	55	60	63	61	64	61	62	57	51	53	59	51	55	51	50
4000		47	49	44	50	52	53	54	53	54	56	48	45	47	45	43	46	42	44
8000		38	43	36	42	39	41	42	44	43	45	41	41	41	41	41	36	37	
OVERALL		75	77	76	79	76	77	76	79	81	79	76	75	74	75	76	80	75	75

°° NO DATA COLLECTED.

TABLE	SOUND PRESSURE LEVEL (DB)																		IDENTIFICATION:	
10.5	OCTAVE BAND																		OMEGA 1.5	
	DISTANCE : 100 METERS																		TEST DP-OT9-800	
	NOISE SOURCE/SUBJECT:																		RUN 01	
	(OPERATION:																		METEOROLOGY:	
	(FLIGHT IDLE (35.4X RPM)																		TEMP : 15 C	
	(SINGLE ENGINE GROUND																		BAR PRESS : 0.760 M HG	
	(RUNUP IN THE A/F321-9																		REL HUMID : 70 %	
	(NSS MCCONNELL AFB																		PAGE 5	
	ANGLE (DEGREES)																		**	
FREQ	0	350	340	330	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
(HZ)																				
4	70	73	78	78	77	76	72	73	71	72	73	74	75	79	78	81		77	73	
8	75	74	77	75	73	73	71	73	71	72	73	75	70	74	73	79		76	72	
16	72	71	74	72	71	71	71	70	69	72	70	71	72	73	74	73		71	71	
31.5	80	78	76	73	75	69	72	69	71	70	70	69	68	68	75	69		68	69	
63	68	66	67	64	71	65	65	63	67	69	68	66	64	65	62	64		63	62	
125	63	61	64	62	71	67	65	68	70	67	67	69	65	64	63	59		64	60	
250	57	57	60	60	61	71	63	65	63	67	62	61	56	55	54	53		52	53	
500	51	50	51	52	56	61	55	59	63	58	55	53	53	52	53	54		53	52	
1000	49	48	51	49	59	64	60	60	65	58	57	55	54	56	55	55		58	55	
2000	54	51	50	47	56	64	59	58	63	57	58	57	54	53	56	54		55	55	
4000	52	48	47	44	49	54	53	52	58	51	52	51	48	47	48	46		46	47	
8000	47	42	41	42	41	43	43	43	48	42	42	41	41	41	41	41		40	41	
OVERALL	82	81	83	81	82	80	78	79	79	79	79	79	78	81	82	84		80	78	
** NO DATA COLLECTED.																				

NO DATA COLLECTED.

TABLE		SOUND PRESSURE LEVEL (DB)																IDENTIFICATION:	
10.5		OCTAVE BAND																	
		DISTANCE : 100 METERS																	
		NOISE SOURCE/SUBJECT:																	
		(OPERATION:																	
		(MAX CONT PWR(88.6x RPM)																	
		(SINGLE ENGINE GROUND																	
		(RUNUP IN THE A/F321-9																	
		(NSS MCCONNELL AFB																	
		F108 ENGINE IN THE																	
		A/F321-9 NSS AT																	
		MCCONNELL AFB-KANSAS																	
		FAR FIELD NOISE																	
		METEOROLOGY:																	
		TEMP = 15 C																	
		BAR PRESS = 0.760 M HG																	
		REL HUMID = 70 %																	
		PAGE 5																	
		FREQ																	
		(HZ)																	
		0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																	
		4 85 81 83 78 81 78																	
		8 89 88 85 85 85 86																	
		16 89 87 88 87 89																	
		31.5 92 91 89 84 86 89																	
		63 88 87 84 80 77 81 83 82 82 75 72 71 67 63 62 66 64 68																	
		125 78 80 78 70 79 77 76																	
		250 72 73 69 65 65 70 66 67 67 62 65 61 60 59 66 63 69																	
		500 62 63 60 58 60 60 61 63 62 65 64 64 62 62 59 65 63 67																	
		1000 60 60 60 54 65 57 64 61 55 62 63 63 63 60 61 57 60 61 64																	
		2000 60 59 57 54 61 55 62 63 63 63 63 63 63 60 61 57 60 61 64																	
		4000 62 61 59 57 54 51 57 56 56 57 52 51 51 51 53 58																	
		8000 57 55 54 49 44 46 49																	
		OVERALL 96 95 94 92 92 92 92 94 89 91 91 88 87 85 87 88 90																	

** NO DATA COLLECTED.

SOUND LEVEL (DB)																	IDENTIFICATION:	
BAND																		
100 METERS																	OMEGA 1.5	
																	TEST DP-OT9-800	
SUBJECT:																	RUN 03	
OPERATION:																	METEOROLOGY:	
(TAKE-OFF PWR (89.4X RPM))																	TEMP = 15 C	
(SINGLE ENGINE GROUND)																	BAR PRESS = 0.760 M HG	
(9 NSS AT)																	11 MAR 87	
(AFB-KANSAS)																		
(RUNUP IN THE AF32T-9)																	REL HUMID = 70 %	
(NSS MCCONNELL AFB)																	PAGE 5	
FREQ																	**	
(HZ)																		
0 350 340 330 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																		
4																	83	
8																	81	
16																	87	
31.5																	89	
63																	91	
125																	89	
250																	87	
500																	79	
1000																	80	
2000																	74	
4000																	67	
8000																	65	
OVERALL																	96	
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